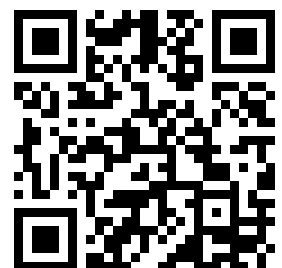

This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

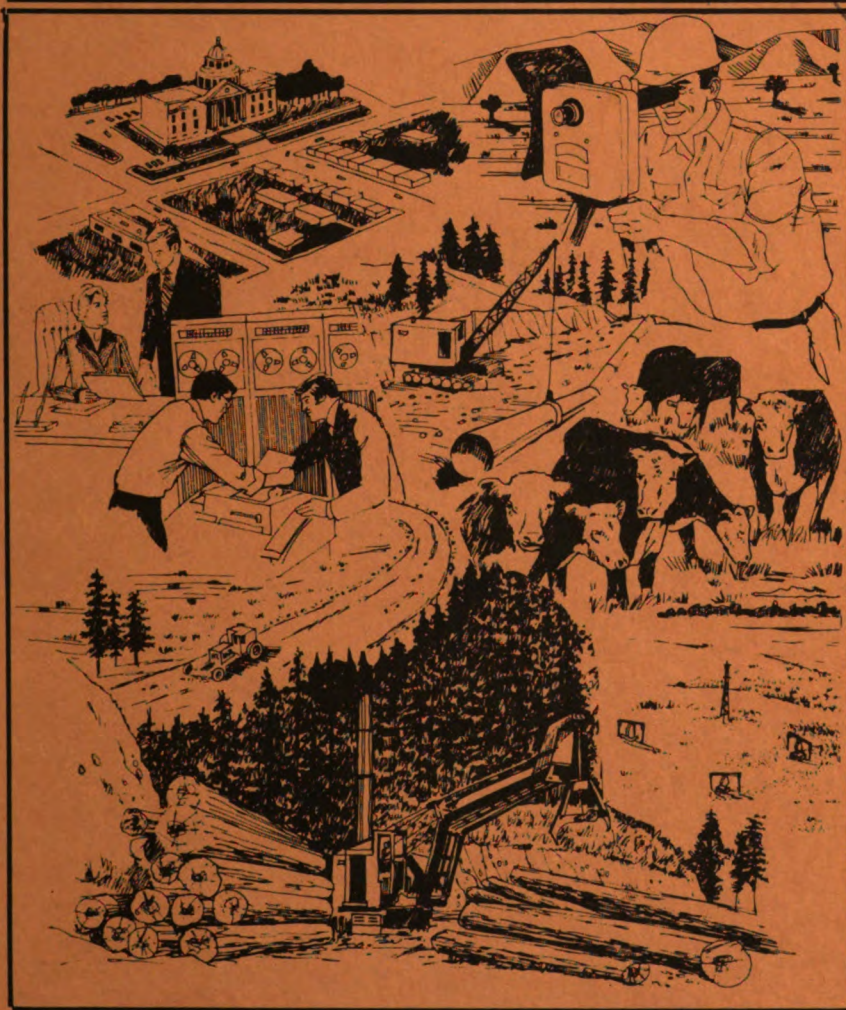
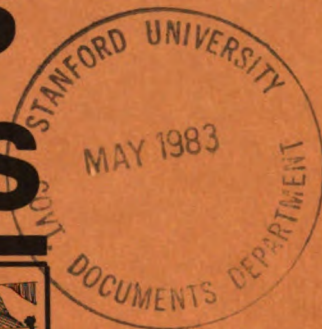
GoogleTM books

<https://books.google.com>



I 53.12 / 2: 981

Managing the Nation's Public Lands



January 31, 1982

U.S. Department of the Interior
Bureau of Land Management

Managing the Nation's Public Lands

A Program Report Prepared Pursuant to
Requirements of the Federal Land Policy
and Management Act of 1976

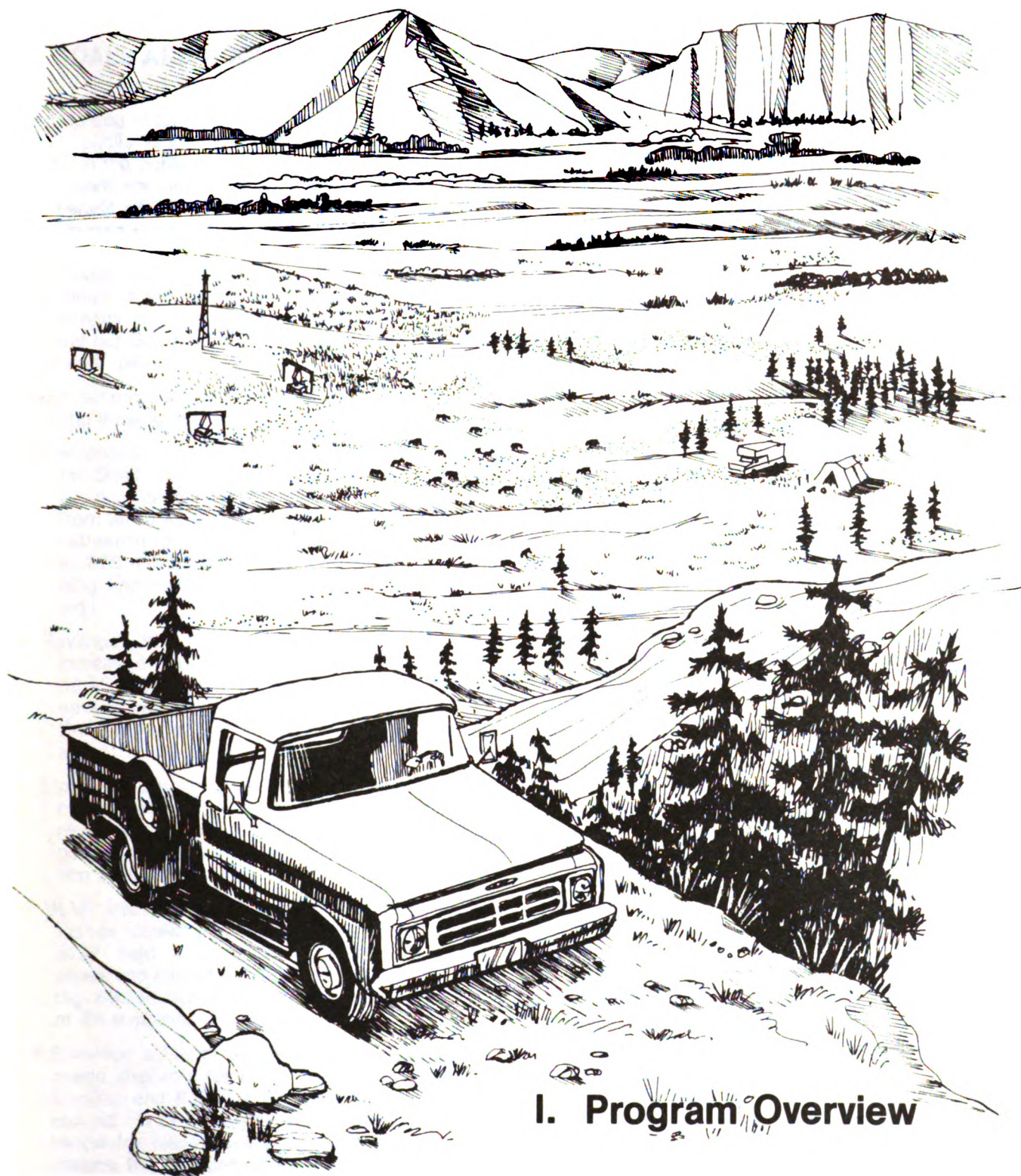
January 31, 1982

U.S. Department of the Interior
Bureau of Land Management

MANAGING THE NATION'S PUBLIC LANDS

TABLE OF CONTENTS

I. Program Overview.....	7	3. Natural History Resource Management.....	67
II. Revenues and Receipts.....	15	4. Cultural Resource Management.....	68
III. State and Local Shares.....	19	5. Wild Horses and Burros.....	70
IV. BLM Operating Programs.....	25	E. Lands and Rights-of-Way.....	75
A. Planning and Inventory Management.....	29	1. Lands.....	75
B. Energy and Minerals.....	33	2. Rights-of-Way.....	77
1. Oil and Gas Leasing.....	33	3. Easement and Miscellaneous Land Acquisition.....	78
2. Energy on the OCS.....	35	F. California Desert Plan.....	83
3. Coal.....	37	G. Financial Management.....	87
4. Oil Shale Leasing.....	39	1. Receipts and Allocations.....	87
5. Tar Sands.....	41	2. Payments in Lieu of Taxes.....	87
6. Geothermal Leasing.....	42	3. OCS Investments Program.....	88
7. Nonenergy Minerals.....	44	H. Management Support.....	93
C. Renewable Resources.....	51	1. Construction and Maintenance.....	93
1. Livestock Grazing Management.....	51	2. General Administration.....	95
2. Range Improvement.....	53	3. Law Enforcement.....	98
3. Soil, Water and Air.....	54	I. Areas of Critical Environmental Concern.....	103
4. Forest Management.....	56	J. Support Services.....	107
5. Wildlife.....	58	1. Fire Management.....	107
D. Heritage Programs.....	63	2. Data Management.....	109
1. Recreation Management.....	63	3. Cadastral Survey.....	112
2. Wilderness Review Program.....	65	K. Special Projects.....	117
		V. Appendix.....	125



I. Program Overview

I. PROGRAM OVERVIEW

A. GOALS AND ACCOMPLISHMENTS

The Bureau of Land Management manages the Nation's public lands, and the resources on those lands, in the public interest. This means orderly development and wise use so that these resources will benefit all Americans—now and in the future. It also means conservation and the striking of a balance between the many uses of the public lands. The Bureau is committed to achieving this balanced use, emphasizing energy and mineral self sufficiency, streamlining policies and regulations, and improving our Good Neighbor Policy to develop a cooperative spirit in the West.

Major accomplishments in fiscal year 1981 toward meeting these goals were:

- A proposed revision of the 5-year Outer Continental Shelf oil and gas leasing schedule was issued. The number of sales offered increases from 36 to 42 and the acres available for consideration for leasing increases from 75 million to 875 million. BLM also is streamlining planning and methods for determining acceptable bids.
- Revenues from Outer Continental Shelf leasing increased 126 percent from \$5.3 billion in FY 80 to \$12 billion in FY 81. In FY 81 BLM held seven competitive OCS lease sales resulting in the leasing of 374 tracts covering two million acres.
- State and county governments received \$482.7 million (15 percent more than in FY 80) from revenues produced from public lands. County governments received an additional \$104 million from appropriated funds.
- BLM issued 264 noncompetitive geothermal leases covering 503,480 acres. In addition, BLM held 4 competitive geothermal lease sales and issued 41 competitive leases (covering 83,360 acres), resulting in bonus receipts of \$6.9 million.
- 6.6 million acres of acquired military lands were made available for noncompetitive oil and gas leasing and 8,838 lease applications were received. With Department of Defense concurrence for lease issuance, this could greatly increase the chances of discovering and producing more domestic oil and gas.
- Coal leasing resumed after a ten year moratorium. 14 leases covering about 34,607 acres were issued. Recoverable coal reserves in the 14 leases are estimated to be 296 million tons.
- A draft Rangeland Management Policy for livestock grazing use was developed in FY 81. This policy will place federal resource management investments where they are most needed. The result will be more effective and efficient management while meeting the objective of protecting and improving rangeland condition and productivity.
- More than 12,000 horses and burros were removed from the public lands in FY 81. Approximately 10,000 of those animals were adopted, an increase of 3,000 animals over FY 80.
- To make the Adopt-A-Horse Program more self sustaining, BLM announced a fee increase of \$200 for a wild horse and \$75 for a burro plus transportation costs. This will reduce the expenditure of appropriated funds.
- More than 1.18 billion board feet of timber was sold in FY 81 for 286 million dollars.
- Nearly 400 requests for 700,000 acres were received from the Governors of western States identifying public lands needed for community expansion, penal institutions and airports, or other state or local activities.
- 233 Public Land Orders were issued revoking withdrawals on 20.3 million acres. Some 16.7 million acres were opened to mineral leasing and 500,000 acres opened to mining location.
- BLM exchanged 71,900 acres for private or Forest Service lands. In FY 80, 24,740 acres were exchanged.
- Airport leases covering 20,858 acres were renewed or offered in FY 81. In addition, 320 acres were patented for airport use.
- A total of 1.2 million acres were patented in FY 81 for a variety of purposes.
- 60,000 acres were transferred to the lower 48 western States under State indemnity selection rights, satisfying over 10 percent of the remaining outstanding rights.
- BLM rights-of-way regulations were simplified and expedited, reducing the cost to both the government and the public.
- BLM's wilderness study policy was substantially revised, reducing cost and returning lands determined to be unsuitable as wilderness to multiple use as soon as possible.
- BLM's wilderness interim management plan (IMP) was revised to permit increased development of mineral leases issued before October 21, 1976.

- The Secretary directed BLM not to conduct wilderness reviews on public lands in Alaska except for those mandated by regulation.
- A new public land recreation policy will concentrate management efforts and available funds on lands identified by Congress or the public as needing special management attention. It is estimated that 15 percent of public lands fall within this category.
- A draft wildlife policy was developed which will enhance public understanding of existing BLM wildlife policy.

These accomplishments point to a balanced natural resources philosophy, one the Bureau intends to follow under this administration. The results are already becoming apparent and they will be even more discernable in the future. The Bureau is committed to becoming a better public landlord and trustee over the resources BLM manages for the people of this Nation.

B. THE RESOURCES MANAGED BY THE BUREAU

The Bureau of Land Management (BLM) is responsible for achieving balanced and effective multiple use management of publicly owned land. These lands include 175 million acres in 11 western states and 70 million acres in Alaska. In addition, 80 million acres in Alaska are being managed by BLM pending transfer to the Natives and the State. BLM also manages 1.1 billion acres of the Outer Continental Shelf (OCS), and an additional 497 million acres of Federally owned subsurface rights throughout the Nation underlying lands that are administered by other agencies or are privately owned.

Throughout the last century, to raise revenues and to encourage development of the West, the Federal Government sold or granted vast tracts of public domain land to homesteaders, towns, States, railroads and other private companies. Most of these public domain lands had been acquired by the Federal Government in the course of our national development. The Federal Government also reserved millions of additional acres for such uses as National Parks and Forests, wildlife refuges, and defense installations. The lands that BLM currently manages are lands which, for one reason or another, were not transferred to private ownership or other Federal agencies.

The public lands managed by BLM in the western States are now some of America's last wide-open spaces. National attention has turned to the rich resources of the public lands as the Nation seeks to

meet its growing needs for energy, food, timber, minerals, water, wildlife, and recreation. This attention is long overdue and, not surprisingly, has generated increased interest over how to manage and use public land resources. The facts cited below indicate that the stakes are high and continue to grow.

- The public lands and the Outer Continental Shelf contain roughly 10 percent of the Nation's known oil and gas reserves, and much higher percentages of estimated resources.
- Half of the Nation's coal reserves are in the West, and as much as 60 percent of that coal is owned by the Federal Government. BLM also administers substantial eastern coal reserves, the largest portion being in Alabama.
- More than 55 million acres of public land are prospective sources of geothermal energy. Another 2.5 million acres are classified as known geothermal resource areas.
- Some 35 percent of the Nation's uranium reserve is found on public land in the Wyoming basin and on the Colorado plateau.
- About 80 percent of the Nation's oil shale, the largest known reserve in the free world, lies under public lands, mostly in Colorado and Utah.
- The eleven major tar sands sites occur on public lands in Utah, and are estimated to contain almost 2 billion barrels of recoverable oil.
- The public lands contain an enormous storehouse of the Nation's non-energy mineral deposits, including some of the world's principal sources of molybdenum, phosphate, and potash.
- More than 22,000 livestock operators graze about 5.5 million head of domestic livestock on the public lands. Approximately 13 million animal unit months of forage were harvested from these lands, or 6.1 percent of the nation's total rangeland production, in 1981.
- About 1.2 billion board feet of timber, enough to build 200,000 three bedroom houses, are harvested from the public lands in an average year. The estimated market value of all timber on the public lands is about \$15 billion.
- The public made an estimated 200 million visits last year to hundreds of unique recreational areas on the public lands. These areas include 14 Wild and Scenic Rivers, 17 National Trails, 36 Primitive and Outstanding Natural Areas, and 84 special Recreation Areas. In addition, 39 National Natural Landmarks and 21 Research Natural Areas have been designated or proposed on lands administered by BLM.

- BLM has the Nation's largest cultural resource management responsibility. There are over 200 archaeological and historical sites already listed on the National Register of Historic Places; 350 more are pending. Nearly 8,500 other sites or areas are potentially eligible for nomination, and inventories are annually identifying an additional 200-500 sites of major cultural significance.
- No single Federal or State agency manages more wildlife habitat than BLM. The public lands are home to one out of every five of the big game animals in the entire United States, including most of the caribou, brown and grizzly bears, desert bighorn sheep, moose, mule deer and antelope. BLM also manages 47 million acres of wetlands, 30 million acres of riparian habitat, 669,000 miles of perennial streams, and nearly 5 million surface acres of lakes and reservoirs. These lands contain over 90,000 miles of trout, salmon, and other sport fish streams.

The magnitude and value of these resources, along with the high potential for conflicting demands and uses, make BLM issues also some of the most pressing domestic resource policy issues facing the Nation. BLM is involved in many high-visibility issues: offshore and onshore oil and gas development, energy facility siting and transcontinental pipelines, coal development, synfuels, nuclear and other hazardous waste disposal, timber production, the availability of water and land for urban development, the disappearance of the Nation's open spaces, and many others.

In addition to providing energy, food, mineral, forest, wildlife, and cultural resources, the public lands provide revenues to the Federal and State treasuries. An estimated \$13.1 billion were collected in FY 81 and turned over to the Federal Treasury. Portions of this money was paid to State and local governments. These revenues are paid by users of the public lands and the OCS in the form of grazing fees; energy and minerals lease sale receipts, royalties, and bonus payments; timber sales; recreation and firewood permits, etc. (More detailed information on these revenues and their distribution is provided in Parts II and III of this report.)

C. THE HISTORY OF BLM'S MISSION

In 1785 the Surveyor General began the first survey under the United States rectangular survey system, and the first sale of public lands was held in New York City in 1787. Similar sales were conducted by the Board of Treasury for 25 years. To meet demands of pioneers and frontiersmen, Congress established the first land offices in Ohio in 1800, and

followed up by establishing The General Land Office in 1812. In 1849, The General Land Office became part of the Department of the Interior.

The deteriorating condition of the public lands after the turn of the 20th century, underscored by the drought and depression of the 1930's, resulted in the passage of the Taylor Grazing Act in 1934. The U.S. Grazing Service made the first effort to actively manage the unreserved public lands. The Act focused primarily on grazing management, rather than on a broader range of uses, still reflecting perspectives that would change following World War II. The Act perpetuated the assumption that the public lands would eventually be transferred to private ownership.

This assumption was reinforced in 1946 when the Bureau of Land Management was formed, through the merger of The General Land Office and the Grazing Service, to serve as custodial manager of the public lands. BLM's management authority was scattered among a myriad of existing laws involving mining and mineral leasing, grazing, timber, material sales, public land sales, etc. The scattering of authority made BLM's operations complex, inefficient, often times *ad hoc*, and reflected a lack of clarity about BLM's mission. Combined with the assumption that the land would eventually be disposed of, this confusion had the effect of limiting the extent to which Congress was willing to provide funding for investments to improve the productivity of the public lands.

In the Classification and Multiple Use Act of 1964, Congress established a temporary process for reviewing the public lands in Federal ownership to determine which should be classified as suitable for disposal, and which contained values that would make them best suited for retention in Federal ownership. In the same year, Congress created the Public Land Law Review Commission to study the issues of public land management and recommend needed changes in policy and authorities.

The Commission's report was referred to frequently in the development of what became the Federal Land Policy and Management Act (FLPMA) of 1976. The first version of this comprehensive public land law was introduced a year after the release of the report in 1970. After consideration by three Congresses, the Act reflects changing public priorities that had evolved over a decade.

FLPMA clearly establishes the national policy that most public lands shall be retained in Federal ownership and managed for all Americans under the principles of multiple use and sustained yield. Lands are disposed of only if, as a result of land use planning procedures provided for in the Act, it is determined that disposal of a particular parcel

will better serve the national interest. The Act mandates that decisions on the use of the lands be based on inventories of the resource base and on the results of considering alternative levels and types of use. Furthermore, the decisions are to be made with the full participation of the public, and a careful balancing of the interests of competing users.

D. CURRENT RESOURCE DEMANDS AND MANAGEMENT EXPECTATIONS

The creation of a comprehensive legislative mandate (FLPMA) came at a time when demands on the resources of the public lands were increasing rapidly. The growing scarcity of basic commodities, a gradual shift in the demographic center of the Nation to the West and South, increasing national affluence, more leisure time, and an appreciation of environmental values have all intensified pressures for the use of the public lands. These uses are for such sometimes competing purposes as energy production, wildlife habitat, urban growth, wilderness preservation, and recreation, as well as the traditional uses such as livestock grazing, timber production, and mining.

1. What the Public Wants from BLM

The Bureau of Land Management continues to ask the public to express their needs from and their expectations for the public lands. BLM has contacted Governors, State officials, State and regional interest groups, county and local officials and individuals asking them to identify both public land needs and problems with public and management and to suggest opportunities and priorities for the 1980's.

Improving the productivity of the public lands and the outer continental shelf is often identified as a high priority, with particular emphasis on increased energy production. The public also wants BLM to develop the public land resources (rangeland, forests, energy and minerals, etc.) with sensitivity to social, economic and environmental impacts.

Improving Bureau methods for protecting resource values threatened by changes in land use is an equally important goal. This can be achieved by identifying potential adverse impacts associated with changes in the use of public lands, and developing and implementing measures to manage and protect threatened resource values such as wildlife, cultural or historic sites, and unique natural areas.

Through a multi-discipline planning process, BLM is providing timely decisions that carefully consider State and local concerns and priorities and include

effective public participation. The Bureau has developed methods for resolving conflicting uses, policies and procedures which involve the public in the resolution of the potential impacts of alternative land uses. In addition, public land use decisions reflect the social and economic needs of communities and individuals.

Improving BLM efficiency, effectiveness, and responsiveness to public needs is a vital obligation. The Bureau is emphasizing efforts to:

- eliminate conflicting, burdensome, and inconsistent statutory and regulatory guidelines;
- eliminate the backlog of land use applications;
- provide adequate levels of technical and administrative support such as cadastral survey, law enforcement, land transactions fire management, and the construction and maintenance of facilities.

2. Newly Mandated Responsibilities

As interest in and demands on the resources of the public lands have increased, so too have Congressional, Judicial, and Executive mandates for more intensive management, improved protection, and expanded services. Many of these mandates have specific schedules and deadlines for completion. Recent notable legislative mandates include:

- a review of withdrawals of public land made prior to October 21, 1976 to be completed by 1991;
- a five-year schedule for Outer Continental Shelf oil and gas leasing;
- conveyances of public lands to the State of Alaska and to Alaskan native villages and corporations; and
- a review of potential wilderness areas to be completed by 1991.

Judicial mandates which have had the greatest impact on the Bureau's management responsibilities include:

- 144 environmental impact statements (EISs) for livestock grazing on 170 million acres of public rangeland by 1988;
- EISs on forest management in Oregon and portions of California and Idaho by 1982; and
- public land designations as specifically open or closed to off-road vehicle use by the end of 1987.

The Alaska National Interest Lands Conservation Act, passed in FY 81, added over 100 mandates for public land management in Alaska. Major mandates include:

- a study, by 1988, of the Central Arctic Area to determine oil and gas potential and impacts of oil and gas development on the natural resources, particularly wildlife and wilderness values. The study is also to identify transportation routes out of the area.
- offer oil and gas leases in the National Petroleum Reserve—Alaska.
- a comprehensive non-North Slope, onshore oil and gas program.
- evaluate subsistence as part of all land use decisions in Alaska.
- management plans for the White Mountains National Recreation Area and the Steese National Conservation Area by 1985.
- management plans for six new Wild and Scenic Rivers in Alaska by 1983.
- determine what adjustments should be made in land ownership patterns in the Bristol Bay Cooperative Region by 1983.

Also, numerous recent Executive Orders have mandated a variety of special surveys and inventories of, for example, cultural, wildlife, wetlands, and endangered species resources prior to permitting the use of public land for development.

As a result of new legislative mandates, a court order, and new Presidential initiatives, the Secretary adopted a comprehensive program to manage federally owned coal. Among the tasks to be accomplished under this program are the initiation of regional lease sales beginning in January 1981 and processing all pending preference right lease applications by December 1984.

In order to comply with the public demands described above, and these statutory requirements it became imperative that BLM establish a flexible, integrated and responsive management system.

E. THE DEVELOPMENT OF A RESPONSIVE MANAGEMENT SYSTEM

The Bureau's budget and its functional organization are divided into programs designed to address one or more resource management objectives such as: energy and minerals management, range management, and forest management. When statutory judicial, or administrative mandates change, BLM is often expected to rapidly shift available funding and personnel sources from program to program to adjust to new demands. In FY 81 the Administration emphasized increasing the efficiency and effectiveness of the federal government. BLM responded by

streamlining many of its processes and systems, emphasizing the energy and mineral programs.

As the Congress recognized when it drafted FLPMA, public land management is not simply a matter of administering a series of programs to address isolated problems and issues. The central reality of public land management stems from the nature of the lands themselves. BLM manages an intricate combination of natural resources—from coal to caribou, watershed to cultural resources—which interlock in a system wherein change in the use of one almost invariably means change in another. FLPMA mandates a management approach which reflects the sensitivity and complexity of these multiple uses. BLM has developed and implemented a management system to meet this FLPMA mandate and to guide its decisions and actions. There are four key elements in this system:

- accurate and periodically up-dated inventories which supply data for decisionmaking, supported by monitoring of resource conditions on the public lands, to determine the effectiveness of a wide range of activities;
- a planning and decisionmaking process that provides a balance among the range of alternative uses and includes unprecedented public input, and directs BLM's implementation activities;
- implementation of land use plans, particularly by making on-the-ground improvements that increase productivity and resource values on the public lands; and
- service, operations and maintenance activities to meet the public's needs, and to provide cost effective protection of existing investments.

A key to understanding BLM's operation is to realize that a decision made to delay or expedite one BLM program, one resource, or one element of BLM's management system necessarily affects and involves other BLM programs and resources as well. Under existing statutes and Executive Orders, for example, BLM cannot issue a coal lease, approve a transmission route, or construct a range improvement project before impact assessment work is completed. Similarly, BLM cannot designate a special environmental area or permit off-road vehicles to use a particular area without first considering how other resources in the area will be affected and what other uses might be made of the land.

BLM's management process, is capable of efficiently, effectively, and fairly resolving many of the conflicting demands placed upon the public lands and of facilitating the development of needed resources while protecting other resource values from inadvertent damage or destruction. Recent appropriation and authorization requests have reflected a

strong commitment to this balanced multiple-use management approach.

F. BLM's BUDGET

1. Recent Trends in Funding

Over the past decade appropriations have steadily increased, primarily due to three factors: 1) the increased value of the public land resources and the corresponding increase in amounts of shared revenues paid to State and local governments; 2) the increased national emphasis on energy development; and 3) the more active management of the public lands mandated by FLPMA.

The increase in appropriations that are simply passed through to the State and local Governments has been the single largest increase in BLM's appropriation since enactment of FLPMA. Shared revenues (primarily receipts from mineral leasing) have increased by more than 150 percent since 1976 (in current dollars without adjusting for inflation). The addition in 1977, of an appropriation for Payments in Lieu of Taxes added about \$100 million per year to BLM's appropriation.

The growth of BLM's operating budget (536 million in FY 81) has been less than is the case for shared revenues, although the operating budget has almost doubled since 1976. Most of this increase was in energy and mineral management, which increased three-fold, and in renewable resource management, which increased 2.5 times.

2. Reductions in Bureau Appropriations

Fiscal year 1981 marked the beginning of a new direction in the management and funding of BLM. Innovations and initiatives introduced in 1981, which will continue in 1982 and the following years, will have significant effects on appropriation requirements. Among the changes or decisions made in 1981 are;

- simplification of withdrawal review processes that will assure that the statutory deadline of 1991 for completion of the reviews is met, and at the same time reduce costs by 40 percent;

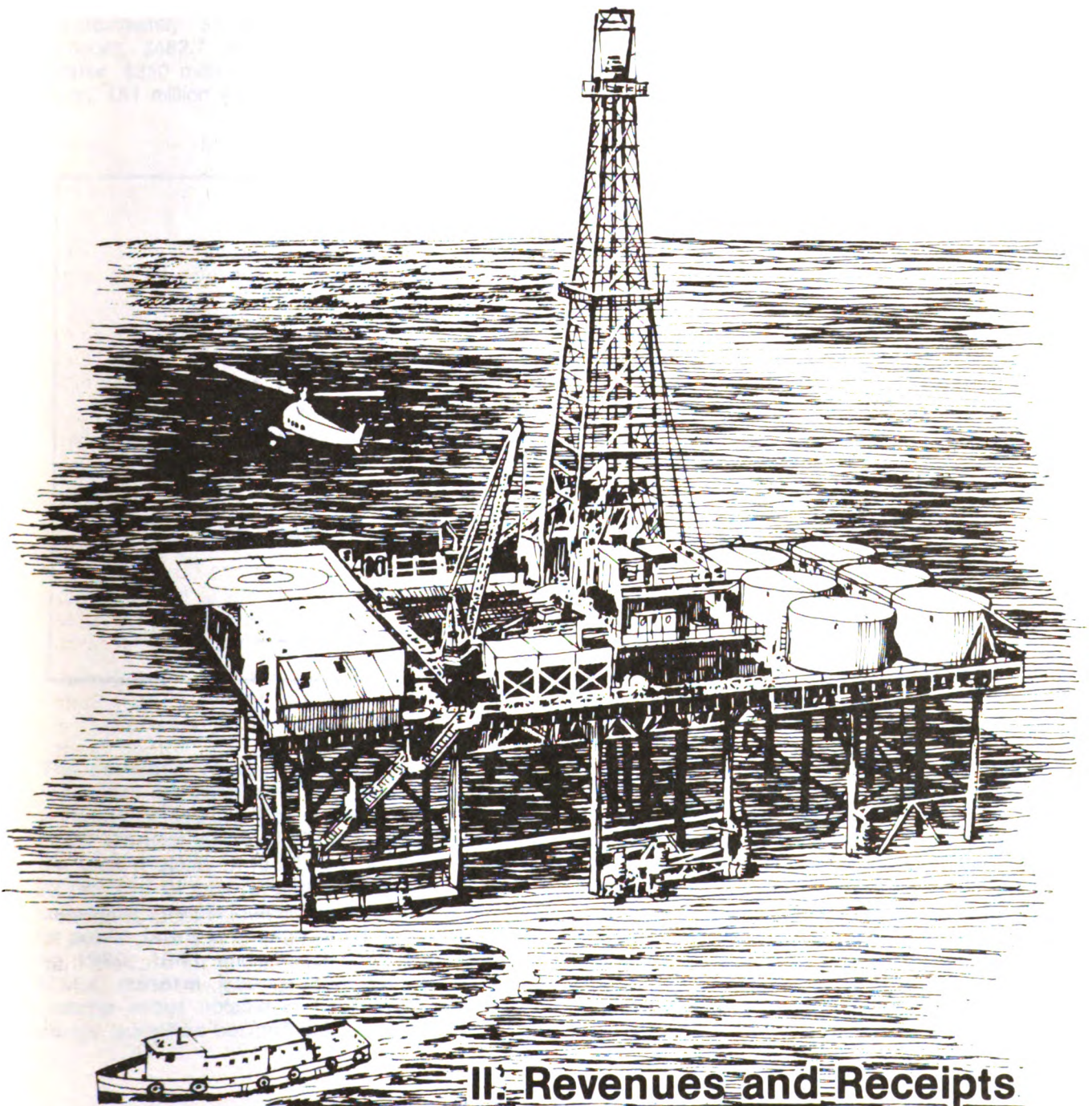
- a decision that mineral surveys will be conducted on potential wilderness areas only after a tentative determination of wilderness suitability is made, saving millions of dollars in unnecessary costs; and
- a decision to increase adoption fees for wild horses and burros in FY 82, which will "free up" funds for better herd management and assure that more of the taxpayers' cost of gathering the animals is recovered.

Not all changes begun in 1981 will reduce costs, however. The Administration is also committed to several program emphases that will receive strong funding support. Among these are:

- an acceleration of the five-year offshore oil and gas leasing schedule prepared in draft form during FY 81;
- an invitation by the Secretary to States and communities to identify indemnity selections and necessary land exchanges and a commitment to expedite action on such applications; and
- a commitment to convey 13 million acres annually to the State of Alaska to complete the conveyances required by the Alaska Statehood Act.

The appropriation for FY 82 reflects these and other changes in Bureau priorities and operations. After a period of steady growth, the Bureau's operating budget will be relatively stable from 1981 to 1982. In this period of spending restraint, the BLM budget of 1982 reflects several significant thrusts:

- emphasis on the priorities of energy leasing management and response to public and State government applications for land exchanges, State indemnity selections, and other lands and realty casework;
- the adoption of new procedures and simplified processes that will reduce costs and accelerate completion of withdrawal review, land use planning, wilderness review, and other tasks;
- changes in policies that will reduce federal spending by transferring costs to others when that is appropriate (*e.g.*, range maintenance costs that should be borne by livestock operators); and
- acceleration of decisionmaking and elimination of excessive costs of studies and inventory.

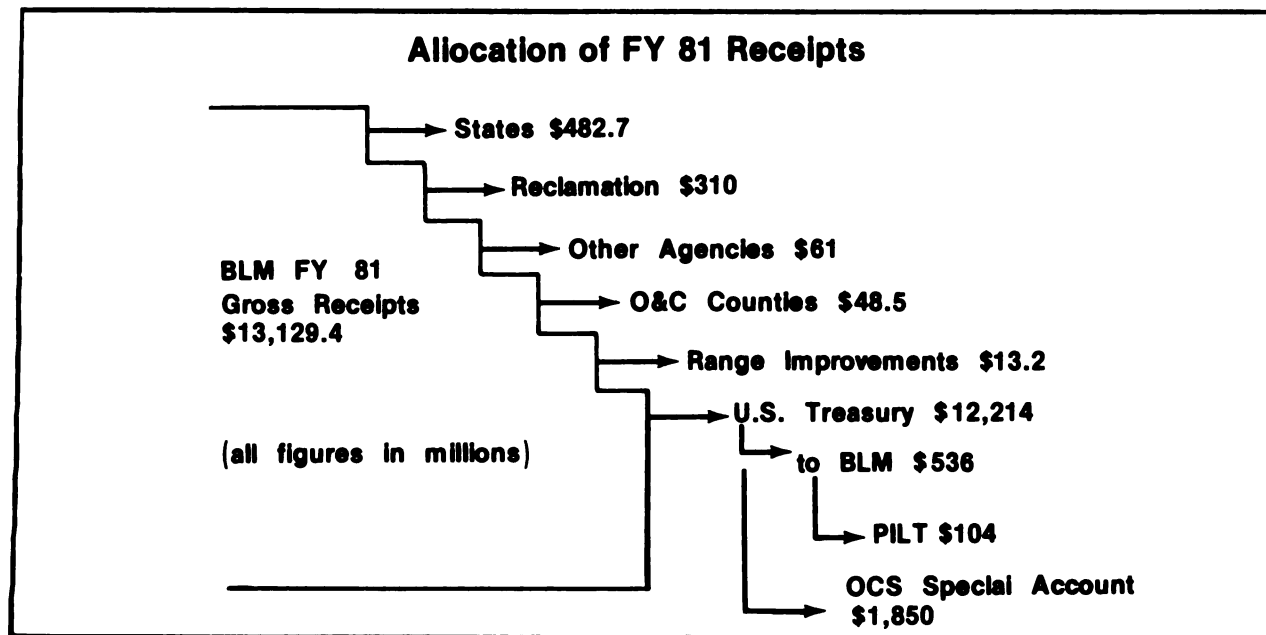


II. Revenues and Receipts

II. REVENUES AND RECEIPTS

The Bureau of Land Management is a primary collector of revenues from the public. Gross receipts from the sale, lease and use of public lands and resources have been increasing steadily, and totaled approximately \$13.1 billion in FY 81. Of this amount, \$482.7 million will be returned to the states, \$310 million was given to the Reclamation fund, \$61 million was given to other Federal agen-

cies, and the remaining \$10.4 million went into the general fund of the U.S. Treasury. An additional 1.9 billion was deposited in special OCS accounts in the Treasury. By comparison, only \$536 million (less than 4 percent) was then appropriated from the Treasury to BLM for operating expenses in FY 81. This is a ratio of \$23 collected for every \$1 appropriated.



The development and use of the public lands and resources managed by BLM generate receipts from a variety of sources. Bonus bids and royalties from Outer Continental Shelf (OCS) leasing account for the vast majority of receipts, \$12 billion or roughly 92 percent of total receipts in fiscal year 1981. Accelerating interest in energy and mineral exploration on public lands is strongly reflected in the increasing 1980, 1981, and projected 1982 receipts from BLM's mineral leasing programs; a trend that became most notable in 1973 when international energy supplies became increasingly unstable and

costly. Although still significant, receipts from timber sales on the public lands have recently decreased because of the depressed condition of the housing industry. Timber receipts were \$215.7 million in FY 81. BLM also generates receipts from a variety of other sources, including sales of public lands and materials, fees and commissions, grazing, right-of-way leases, and permits. Table 1 shows actual receipts of the Bureau of Land Management for fiscal years 1978, 1979, 1980, and 1981 and estimated receipts for fiscal years 1982, and 1983.

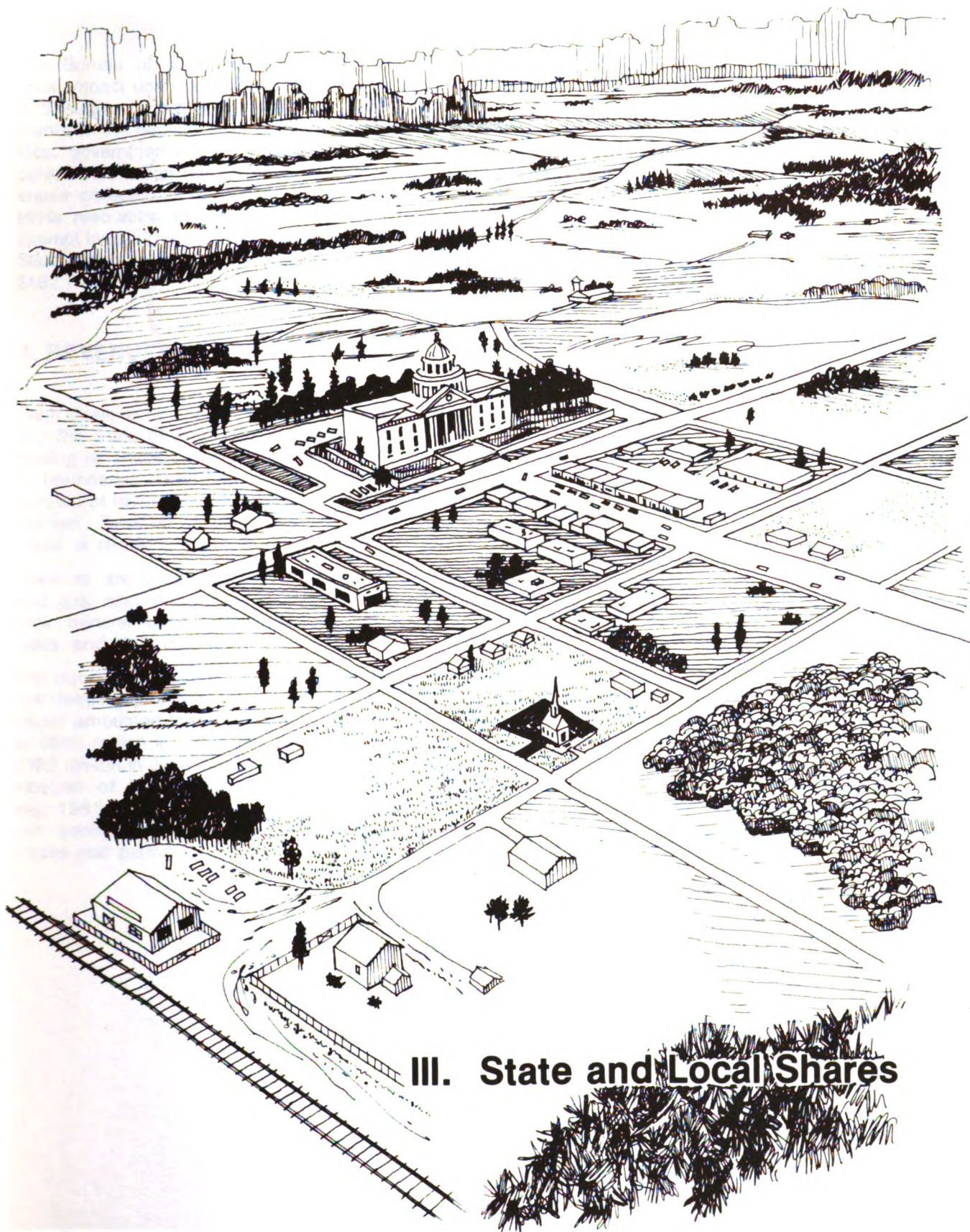
TABLE 1—RECEIPTS BY SOURCE

(all figures in thousands)

	1978 Actual	1979 Actual	1980 Actual	1981 Actual	1982 Estimated	1983 Estimated
Sales, Public Land Materials	\$1,609	9,240	7,796	4,829	7,000	7,000
Fees and Commissions.....	31,814	39,730	28,593	43,831	130,900	187,500
Mineral Leasing*	402,286	453,514	682,129	821,990	1,361,700	1,297,000
Mineral Leasing, OCS	2,259,308	3,267,377	5,353,638	^b 11,988,516	7,900,000	18,000,000
Grazing Fees.....	16,317	19,877	24,601	24,884	20,593	21,065
Right-of-Way Leases	862	869	899	588	831	831
Timber Sales	195,393	218,208	216,109	215,744	243,950	261,300
Rent of Land	4,481	286	1,978	15,850	1,716	1,716
Miscellaneous Receipts	16,298	10,178	16,347	13,727	13,262	14,351
TOTAL	\$2,928,368	4,019,279	6,332,050	13,129,959	9,679,952	19,790,763

*Includes Mineral Leasing receipts collected by BLM and transferred to other agencies for distribution.

^bIncludes 1.9 billion deposited into Treasury special OCS account.



III. State and Local Shares

III. STATE AND LOCAL SHARES

The Bureau of Land Management's most direct fiscal impact upon public land States and localities is through revenue sharing and other direct payments. In the decade 1972 through 1981, State and local governments in the public land States received \$2.5 billion from BLM as their share of revenues collected from the lease or sale of public lands resources and as in-lieu payments for tax-exempt lands. The amount of money going to these States each year rose from \$93.6 million in 1972 to \$482.7 million in 1981.

A. REVENUE SHARING

Each State in the lower 48 receives 50 percent, and the State of Alaska 90 percent, of all mineral leasing revenues collected from public lands within its boundaries. The State of Alaska will receive 50 percent of revenues received from the National Petroleum Reserve—Alaska (NPRA). Two million acres in NPRA is planned to be leased in FY 82.

Receipts are generated from mineral leasing (oil and gas, coal, and other leasable minerals), hard-rock mineral development, grazing fees, timber sales, and other user fees.

The dominant source of revenue is the energy mineral leasing program. Actual onshore mineral receipts amounted to \$486 million in 1979, increased to \$682 million in 1980, and are expected to go to \$822 million in fiscal year 1981. Table 2, on the distribution of BLM receipts to States during fiscal year 1981, indicates the sources of revenue sharing and shows the dominant contribution of mineral leases and permits.

FLPMA amended the Mineral Leasing Act to raise the States' share of federal mineral receipts from 37.5 percent to 50 percent. FLPMA also liberalized the use of these funds, stating that they could be used for any purpose a State legislature directs, with priority to be given to the State subdivisions that are socially or economically impacted by federal energy development.

B. PAYMENTS IN LIEU OF TAXES

State governments in the West are the principal beneficiaries of the 1976 Payments in Lieu of Taxes Act. This law was passed to provide federal payments to those areas where large portions of land are in federal ownership and, therefore, exempt from local property taxes. Serving as a supplement to revenue sharing funds, Payments in Lieu of Taxes (PILT) are made directly to local governments and may be used for any governmental purpose.

Lands eligible for PILT consist of federally owned lands in the National Forest System and the National Park System, lands administered by BLM, lands dedicated to the use of federal water resource development, dredge disposal areas under the jurisdiction of the Army Corps of Engineers, and effective as of FY 79, National Wildlife Reserve Areas, inactive and semi-active Army installations, and certain lands donated to the United States Government.

Since PILT payments were started on September 30, 1977, over \$513 million has been paid to the States; about \$104 million of that amount was paid in FY 81. Table 3 lists PILT payments to the States in FY 80 and FY 81.

**TABLE 2—PAYMENT OF BUREAU OF LAND MANAGEMENT RECEIPTS TO STATES AS OF
SEPTEMBER 30, 1981**

States	Mineral Leases and Permits	Forage Receipts Outside Taylor Grazing Districts	Forage Receipts Inside Taylor Grazing Districts	Sale of Public Land and Timber	Other	Total
Alabama	39,214	00	00	00	00	39,214
Alaska	2,609,503	00	00	^a -24,147	00	2,585,356
Arizona	2,145,545	178,664	124,689	1,412	00	2,450,310
Arkansas	224,479	00	00	00	00	224,479
California	23,597,963	181,405	36,341	114,787	00	23,930,496
Colorado	25,055,493	64,775	122,224	15,386	00	25,257,878
Florida	136,416	00	00	00	00	136,416
Idaho	2,963,939	47,658	312,542	34,448	00	3,358,587
Kansas	767,978	147	00	00	00	768,125
Louisiana	389,550	00	00	243	00	389,793
Michigan	32,500	00	00	00	00	32,500
Mississippi	35,766	00	00	00	00	35,766
Montana	11,808,646	185,872	207,454	7,681	640,625	12,850,278
Nebraska	187,947	1,456	00	00	00	189,403
Nevada	8,249,840	51,913	539,245	264,699	00	9,105,697
New Mexico	108,177,386	281,119	368,095	8,130	22,210	108,856,940
North Dakota	5,613,615	10,103	00	00	00	5,623,718
Oklahoma	1,486,915	400	00	00	10,712	1,498,027
Oregon	492,720	57,472	264,394	^b 98,020,790	850,819	99,686,195
South Dakota	791,063	91,611	00	403	00	883,077
Utah	18,155,173	00	223,208	8,226	1,591	18,388,198
Washington	37,392	31,749	00	2,120	00	71,261
Wyoming	118,426,836	555,204	306,122	26,619	00	119,314,781
Total	331,425,879	1,739,548	2,504,314	98,480,797	1,525,957	435,676,495

^aPrior year adjustment

^bThe majority of the \$98 million is for timber receipts

**TABLE 3—SUMMARY OF PAYMENTS IN LIEU OF
TAXES BY STATE**

	FY 1980	FY 1981
ALABAMA.....	114,447	116,023
ALASKA.....	4,079,527	3,792,297
ARIZONA.....	7,613,690	7,882,400
ARKANSAS.....	1,657,682	1,557,483
CALIFORNIA.....	*12,760,936	11,330,719
COLORADO.....	7,507,361	7,264,862
CONNECTICUT.....	4,862	8,518
DELEWARE.....	4,846	4,919
DIST. OF COLUM.....	5,035	5,112
FLORIDA.....	2,038,497	2,186,284
GEORGIA.....	780,160	838,006
GUAM.....	227	230
HAWAII.....	38,201	38,908
IDAHO.....	6,707,865	7,289,163
ILLINOIS.....	322,101	317,745
INDIANA.....	314,577	287,868
IOWA.....	126,783	128,041
KANSAS.....	347,487	365,066
KENTUCKY.....	736,003	702,701
LOUISIANA.....	134,302	139,104
MAINE.....	50,794	51,879
MARYLAND.....	144,815	152,026
MASSACHUSETTS.....	156,502	163,787
MICHIGAN.....	1,609,278	1,605,818
MINNESOTA.....	1,474,132	1,147,073
MISSISSIPPI.....	426,789	349,110
MISSOURI.....	1,030,016	750,249
MONTANA.....	8,078,067	7,698,377
NEBRASKA.....	328,876	329,860
NEVADA.....	5,200,468	5,525,704
NEW HAMPSHIRE.....	297,144	311,293
NEW JERSEY.....	158,024	168,089
NEW MEXICO.....	9,589,751	9,797,851
NEW YORK.....	195,824	157,707
NORTH CAROLINA.....	894,494	^b 1,737,002
NORTH DAKOTA.....	571,552	582,680
OHIO.....	420,170	431,182
OKLAHOMA.....	784,538	740,527
OREGON.....	2,831,037	2,778,579
PENNSYLVANIA.....	492,893	508,129
PUERTO RICO.....	16,738	13,900
RHODE ISLAND.....	1,475	1,497
SOUTH CAROLINA.....	98,834	113,187
SOUTH DAKOTA.....	2,019,329	1,627,377
TENNESSEE.....	651,196	601,223
TEXAS.....	1,301,686	1,457,015
UTAH.....	8,146,654	8,626,041
VERMONT.....	135,081	133,329
VIRGINIA.....	1,465,504	1,474,192
VIRGIN ISLANDS.....	20,475	25,149
WASHINGTON.....	1,454,578	1,405,130
WEST VIRGINIA.....	797,407	813,276
WISCONSIN.....	734,987	^b 765,800
WYOMING.....	6,550,736	678,826
TOTAL.....	\$103,425,423	\$103,978,313

*Includes \$1,284,402 paid from FY 78 and FY 79 funds.

^bIncludes \$560,587 paid from FY 79 funds.



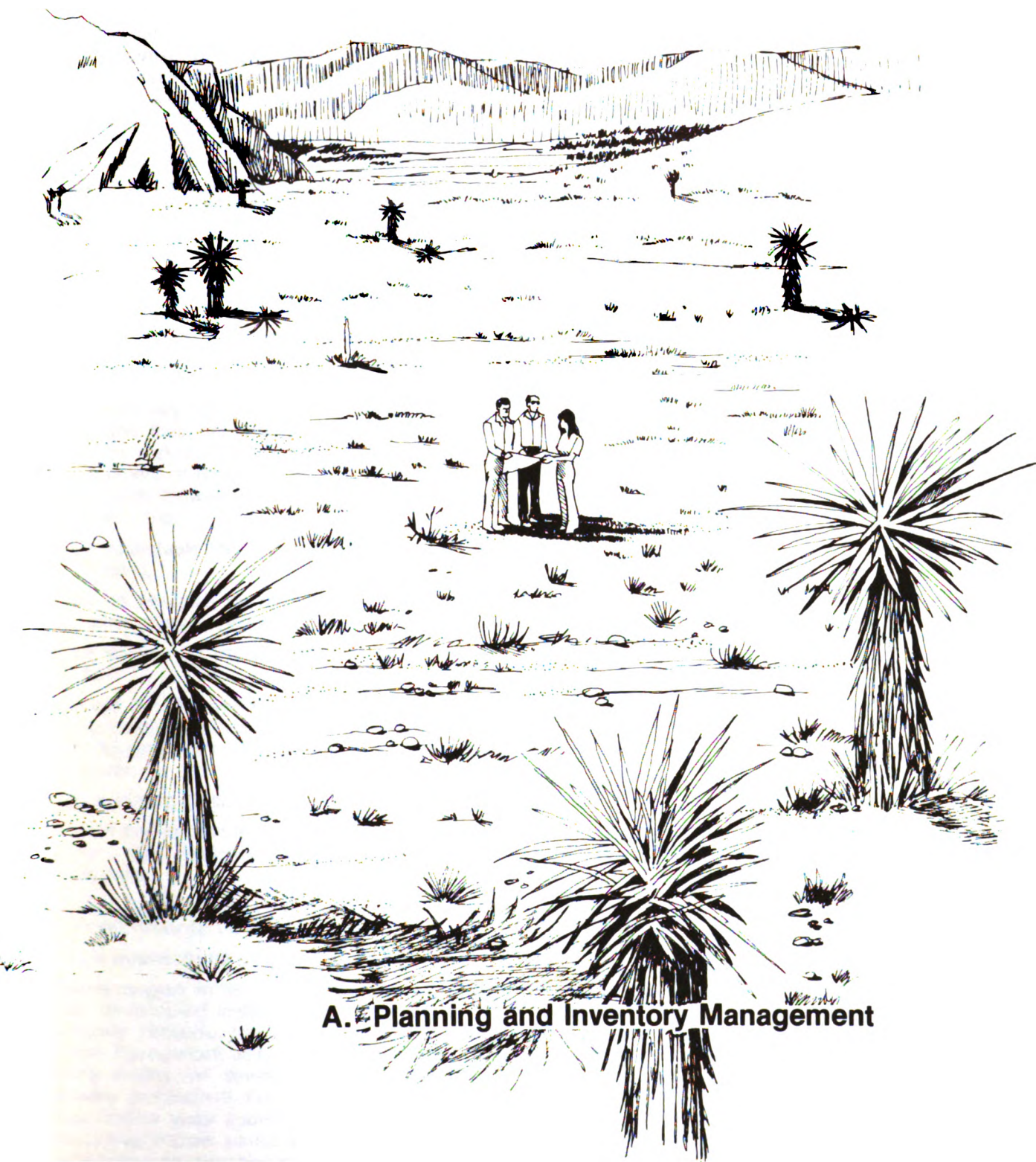
IV. BLM Operating Programs

IV. BLM OPERATING PROGRAMS

INTRODUCTION

The following sections summarize BLM's activities in fiscal year 1981. Activities occurring between the close of the fiscal year and the publication of this report will be summarized in the FY 82 report. Each program chapter has five parts: (1) a brief program description; (2) a progress report; (3) a description of public issues associated with the program; (4) a

section on budget; and 5) a description of evaluations and audits completed, underway, or planned in FY 81. The FY 81 appropriation (see budget sections) is adjusted to include supplementals (including pay) and reprogramming. The funding figures for FY 82 do not include funds for "Common Program Services"; the funding figures for FY 79, 80, and 81 do. The appendix provides a brief description of the organizational structure of BLM.



A. Planning and Inventory Management

A.1. PLANNING AND INVENTORY MANAGEMENT

a) Program Description

The Federal Land Policy and Management Act (FLPMA) directed that BLM maintain an inventory of and develop land use plans for all public lands. To fulfill these requirements, BLM developed comprehensive resource management planning regulations which became effective on September 6, 1979. Since that time BLM has begun to develop procedures and processes to implement those regulations and provide for an orderly transition from its old planning system (Management Framework Plans) to its new system (Resource Management Plans). Additionally, BLM and the Department are considering a number of streamlining changes in the planning regulations to reduce planning costs, shorten planning timeframes, and make the planning system more responsive.

The new planning process is the core of BLM's resource management decisionmaking. It provides for interdisciplinary resource planning for the public lands and their resources. These plans form the basis for making decisions on the protection and management of critical areas and the allocation of public lands between uses or levels of use, including which lands:

- are acceptable for further consideration for coal leasing;
- will be available for oil and gas, oil shale, and other energy developments;
- are suitable for transfer to State and local entities.
- should be allocated for wildlife, wild horses, and domestic livestock use and what provisions are necessary for protecting the soil and vegetative cover;
- are available for timber production;
- should be recommended as suitable or unsuitable for the National Wilderness Preservation System;
- qualify for special attention as Areas of Critical Environmental Concern,
- will be available for off-road vehicle use;

All plans begun in fiscal year 1981 and thereafter will be developed under the new regulations. The regulations provide, however, for completing management framework plans already underway and in different states of development when the regulations were published. Accordingly, on December 3, 1979, a notice was published in the *Federal Register* indicating those portions of the new regulations that will apply to ongoing plans. This schedule was updated in a *Federal Register* notice on January

19, 1981. Additionally, BLM intends to make maximum use of the plan amendment process. Use of the amendment process with existing Management Framework Plans (MFPs) accelerates the response time of the planning process to new proposals, developments, or policies. This management tool will effectively meet energy proposals and program requirements that need immediate attention.

b) Progress Report

New planning regulations became effective on September 6, 1979, and BLM has focused on five pilot RMP efforts as a way to develop efficient operational procedures for implementing these regulations. With two years experience, major effort will be devoted in 1982 to the identification of additional timesaving steps and efficiencies for incorporation into the planning process.

For example, a possible amendment to the 1979 planning regulations is under consideration which would simplify and streamline the planning system for two primary reasons: 1) to reduce costs and the time necessary for planning, and 2) to make the planning system more responsive to immediate energy and other requirements.

BLM also prepared a set of draft Interim Guidelines for Resource Management Planning. This guidance is intended to assist field offices implement the planning regulations in an efficient and effective manner. The interim guidelines were reviewed by field offices and will be issued in final form in FY 82.

c) Issues

The primary issue concerning the BLM planning process in FY 81 was consideration of changes to improve the planning regulations and resource management process. A proposed amendment to clarify the consistency provisions and streamline the criteria for areas of critical environmental concern was published in the *Federal Register* on December 16, 1980. The director appointed a study group to review and evaluate the planning regulations issued in 1979 and the proposed amendment. That group recommended a number of changes which were proposed by BLM as amendments to the regulations on November 23, 1981. The changes, as discussed earlier, were for the purpose of streamlining the planning process, thereby making it more cost effective and responsive to management requirements.

Significant concern has been expressed over the need to integrate data and information collection and monitoring programs. The inventory coordination system was expanded to alleviate this concern.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Lands and Renewable Resources

Field Administrators: State Directors

2) Authorizing Legislation

Federal Land Policy and Management Act of 1976, P.L. 94-579, 43 U.S.C. 1711, 1731, 1732, 1781; The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat. 2957; Federal Coal Leasing Amendments of 1976, P.L. 94-377; Naval Petroleum Reserve Production Act of 1976, P.L. 94-248, 43 U.S.C. 6501; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat. 2371.

3) Funding

	1980	1981	1982 Planned
Authorization (\$000's).....	11,191	11,791	12,886
Appropriation (\$000's)	11,340	16,000	8,544

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Planning and Data Management

Subactivity: Multiple Use Planning

5) Program Costs

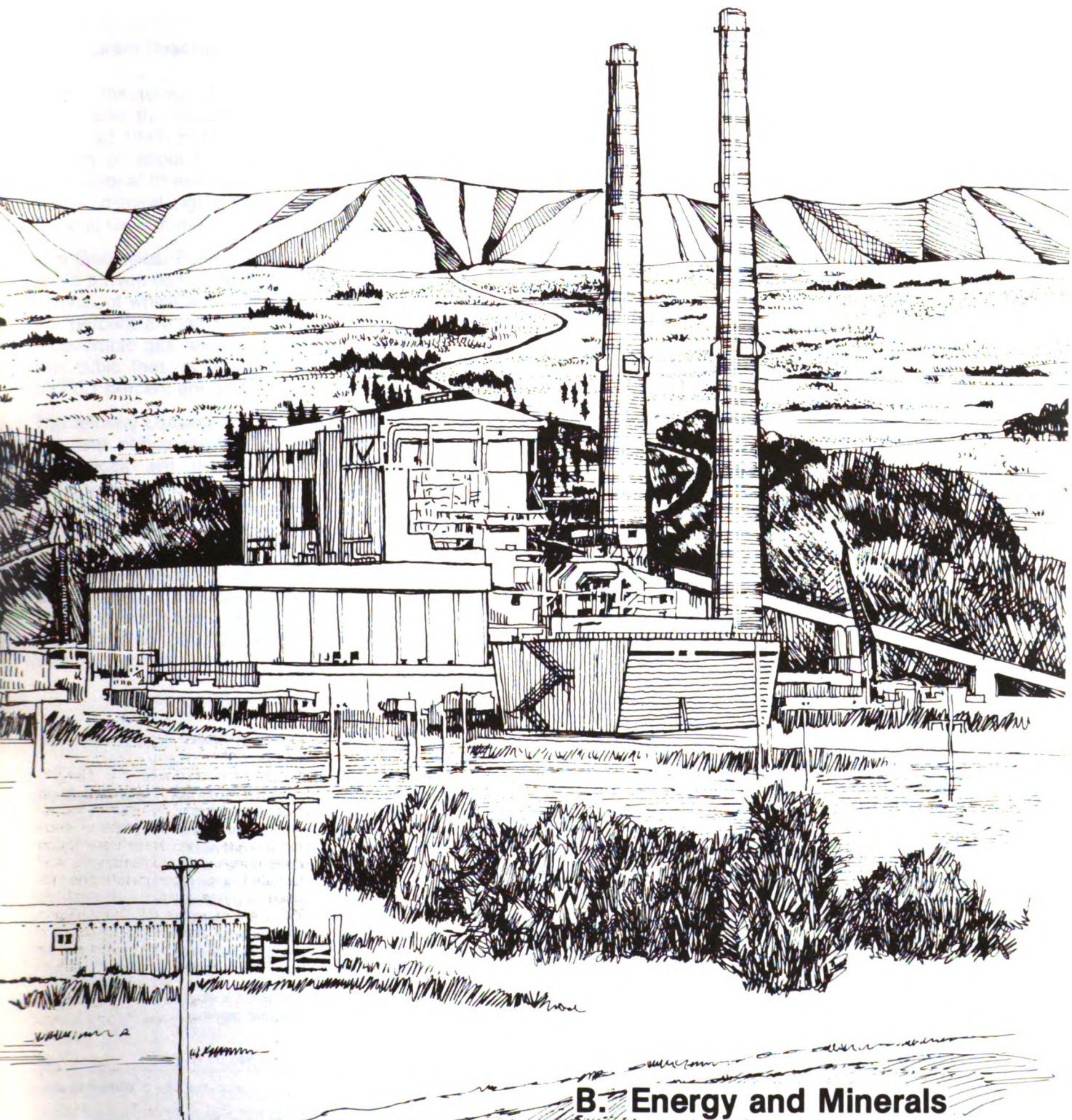
	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars				
(\$000's)	12,999	15,600	14,897	8,544
Work Years.....	439	409	430	313

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Transition Management Framework Plans.....	26	27	33	13
Preplanning Area Analysis.....	16	21	17	10
Planning Criteria.....	N/A	18	11	15
Management Situation Analysis.....	N/A	2	3	17
Alternative Development.....	N/A	2	1	10

e) Evaluations Completed

Organization:	Bureau of Land Management
Title and Date:	Oregon State Office P&EC Functional, June 26, 1981
Major Findings:	The evaluation disclosed one Oregon State Office (OSO) policy that is in error and will be highly counterproductive if continued (extra steps in decision process). Two areas were found where Bureauwide problems were well illustrated and recommendations focused on headquarters as well as OSO (line managers role in managing the planning process and filling the gap in National and OSO guidance for the NEPA process) The evaluation addresses two areas of equivalent concern to the State Director (public participation and consistency), and a recommendation in the public involvement area was made. Finally, some areas of confusion and inefficiency due to gaps in State Office activities were identified and recommendations made for each of these areas.
BLM Action:	An Action Report was submitted by the Oregon State Office and approved by the Director. A followup to the evaluation is scheduled in FY 82.



B. Energy and Minerals

B. ENERGY AND MINERALS

B.1. Oil and Gas Leasing

a) Program Description

Under the terms of the National Leasing Act of 1920 and the Mineral Leasing Act for Acquired Lands of 1947, BLM is responsible for oil and gas leasing on about 520 million acres of public lands and national forests, acquired land, and private land where mineral rights have been retained by the Federal Government.

The Geological Survey (GS) estimates that the Nation's proven oil reserves amount to about 35 billion barrels, of which about 90 percent are onshore and 4.5 percent are on Federal lands. Total remaining recoverable gas reserves are estimated at 208 trillion cubic feet, of which 83 percent are onshore and 6.1 percent are on Federal lands.

The Mineral Leasing Act provides for both competitive and noncompetitive oil and gas leasing. The differences are described in the chart below. Roughly 97 percent of all Federal leasing is noncompetitive. Currently, the greatest activity in these leases is in Colorado, Montana, New Mexico, Utah, and Wyoming. Individual lessors are limited to a total lease acreage of 246,080 each for public land and acquired land (a potential total of 492,160 acres) in any State, except Alaska where lessees are limited to 300,000 acres in each of the two leasing Districts.

Noncompetitive Oil and Gas Leasing

	Noncompetitive Leases	Competitive Leases
Leasing Method	Over the counter (OTC) to the first qualified applicant. When these leases expire or otherwise terminate they are reoffered by lottery through the Simultaneous Oil and Gas Program (SOG).	Issued on a bonus bid basis ¹
Location	Outside a Known Geologic Structure (KGS)	Inside a Known Geologic Structure (KGS)
Size	Up to 10,240 acres	Up to 640 acres
Annual Rental	\$1 per acre	\$2 per acre
Lease Period	Ten years, but can be extended when production is established ²	Five years, but can be extended when production is established ²

Noncompetitive Oil and Gas Leasing—Continued

	Noncompetitive Leases	Competitive Leases
Royalties on Production	12.5 percent on oil and gas	12.5 to 25 percent on oil, 12.5 to 16.66 percent on gas

¹A bonus is the per-acre cash amount an applicant bids on a lease tract. The lease is issued to the applicant with the highest bonus bid.

²Can also be extended when other statutory conditions, such as drilling on the last day of the primary term of a lease exist.

b) Progress Report

In January 1981, the issuance of noncompetitive oil and gas leases was streamlined by making the need for prelease environmental assessments unnecessary in most cases. To expedite reviews and reduce duplication of effort, prelease environmental analyses are to rely on relevant information in existing environmental reviews and land use plans to the maximum extent possible. Leases can then be issued without the onsite inspection usually necessary as a part of the environmental assessment process. Compliance with the National Environmental Policy Act will be accomplished primarily at the time plans for operation are received, rather than at the time the leases are issued. However, lease issuance may still be delayed if planning is incomplete.

Also in January, the responsibility for the ongoing investigation of criminal participation in oil and gas leasing was transferred from the BLM to the Office of the Inspector General (OIG). Procedures developed during 1980 by BLM's investigative task force, which added approximately six months to the time required to process a lease, have been eliminated or modified based on recommendations of the OIG and the U.S. Attorney. During 1981, the Secretary revoked the moratorium which had precluded noncompetitive leasing on 6.6 million acres of lands acquired for military purposes. In the three weeks following the opening of these lands, approximately 9,000 lease applications were received by BLM.

During 1981, the average lease size increased from 1,100 acres in 1980 to 2,158 acres in 1981. A total of 12,239 oil and gas leases involving 26 million acres were issued by BLM. This represents a ten percent increase in leases and a 120 percent increase in acreage over FY 80.

c) Issues

1) BLM, USGS, and the FS are developing procedures to streamline the processing of lease offers and applications for permit to drill.

2) Competitive leasing within the National Petroleum Reserve—Alaska and Certain non-North Slope areas are anticipated to be opened to non-competitive leasing in FY 82.

3) The Department has proposed increasing the noncompetitive lease application filing fee to \$75 (SOG and OTC), and the simultaneous oil and gas lease rental to \$3 per acre per year beginning in the sixth year of the lease term.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1701 *et seq.*; Mineral Leasing Act, P.L. 66-146, 30 U.S.C. 226 *et seq.*; Mineral Leasing Act for Acquired Lands, P.L. 80-382, 30 U.S.C. 351 *et seq.*; The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat. 2957; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat. 2371.

3) Funding

	1980	1981	1982 Planned
Authorization (\$000's).....	11,357	12,907	14,612
Appropriation (\$000's).....	9,965	16,901	17,553

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Energy and Minerals Management

Subactivity: Energy Onshore

Component: Oil and Gas

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's).....	10,162	15,138	16,557	17,553
Work Years.....	427	357	496	563

6) Performance

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Leases Issued ...	9,000	12,000	12,239	19,000
Development Plans Reviewed	-	4,500	5,447	4,950
Compliance Checks	11,300	12,500	9,725	14,050
Assignments.....	31,200	34,800	38,694	37,700
Simultaneous Oil and Gas Lease Applications Processed (in millions).....	2	4.5	4.7	4.0

e) Audits/Evaluations Completed

Organization: General Accounting Office (GAO)

Title and Date: Actions Needed to Increase Federal On-shore Oil and Gas Exploration and Development, February II, 1981 (EMD-81-40)

Major Findings: GAO makes congressional and agency recommendations to open more Federal lands to mineral leasing, formulate a minerals policy for military lands, justify the use of surface protection stipulations, and improve the overall Federal oil and gas leasing and drilling permit programs.

BLM Action: BLM felt that most of GAO's recommendations were consistent with the Bureau's position. However, BLM had reservations about a few of the recommendations. Land use planning decisions that close lands outright to oil and gas leasing are not prevalent. BLM will be looking at the extent restrictive and "no surface occupancy" stipulations are used. Regarding timeframes for completion of lease processing steps, BLM is studying this. The Bureau is also reviewing the recommended requirement to inventory lands closed by management decision to leasing.

f) Audits/Evaluations Underway

Organization:	General Accounting Office (GAO)
Title:	Evaluation of Eastern States Office — BLM's Management of Mineral Programs
Organization:	General Accounting Office (GAO)
Title:	Factors Affecting the Diligent Development of Onshore Oil and Gas on Federal Lands
Organization:	General Accounting Office (GAO)
Title:	Evaluation of Interior's Plans to Accelerate Leasing of Federal Onshore Oil and Gas Lands
Organization:	General Accounting Office (GAO)
Title:	The Effectiveness of Oil and Gas Regulations on Federal Lands in Alaska

g) Audits/Evaluations Planned

Organization:	Bureau of Land Management (BLM)
Title:	Evaluation of the Bureau's Oil and Gas Leasing Process

B.2. ENERGY ON THE OUTER CONTINENTAL SHELF

a) Program Description

The Outer Continental Shelf Lands Act of 1953, later amended in 1978, established Federal jurisdiction over approximately 1.1 billion acres of submerged lands on the continental shelf seaward of State boundaries. The Act charged the Secretary of the Interior with responsibility for administering min-

eral exploration and development on the Outer Continental Shelf (OCS). It also empowered the Secretary to formulate regulations so that provisions of the Act might be met. To carry out this mandate, the Secretary designated BLM as the administrative agency responsible for supervising leasing and the Geological Survey (GS) as the agency responsible for overseeing OCS exploration and development operations. In this role, BLM is responsible for providing orderly and timely development of OCS oil and gas resources, while protecting the environment, and assuring receipt of fair market value for offshore resources.

Since 1953, more than \$40 billion in revenues to the Treasury has come from over 18,000 wells representing more than 3,700 leases. About 5 billion barrels of oil and 45 trillion cubic feet of gas have been produced. The OCS is expected to remain a vital source of oil and gas in the near future. While estimated known reserves total about 3.4 billion barrels of oil and 38.7 trillion cubic feet of natural gas, estimates of potential undiscovered recoverable resources run as high as 43.5 billion barrels of oil and 230.6 trillion cubic feet of gas.

During the past 25 years, the percentage of total U.S. production of oil and natural gas which originates in the Outer Continental Shelf has increased from less than 1 percent to about 9 percent for oil and 23 percent for gas. Until 1975, OCS leasing activity was confined almost entirely to the Gulf of Mexico and a small area in the Santa Barbara channel off Southern California. The growing national demand for oil and gas heightened the need for increased OCS development. In accordance with Section 18 of the OCS Lands Act Amendments, the Department of the Interior issued its first five-year OCS Oil and Gas Leasing Schedule in June 1980. This schedule is reviewed annually.

b) Progress Report

The five year leasing program through mid-1985 was approved in June 1980. As a result of the annual review of this five year schedule, the Department concluded that the 1980 program did not meet the needs of the Nation and that a new program should be prepared. In July 1981, a new proposed Five Year Program was announced. This proposal was transmitted to Congress, the coastal Governors, and the Attorney General, and published in the *Federal Register*.

Issuance of the new program has been delayed by the October 6, 1981, decision by the D.C. Circuit Court of Appeals requiring that additional analytical work be done before a proposed final Five Year Program can be transmitted to the President and

Congress. The Department expects that the Five Year Program will be approved in 1982.

The new proposed program announced in July includes planning areas on the OCS totalling 875 million acres, most of which will be open for bidding one or more times during the five year period January 1982 through December 1986. The proposed program differs from the June 1980 program as follows:

	June 1980 Approved Program	July 1981 Proposed Program
Total proposed sales	36	42
Reoffering sales.....	5	1
Proposed sales in:		
Alaska	10	16
California.....	4	5
Atlantic.....	6	6
Gulf of Mexico.....	11	14

The proposed program also schedules repeat sales (in the same planning area) at more frequent intervals than the 1980 program.

The enhanced pace of leasing will be made possible, in large part, by plans to streamline the pre-sale planning process. The key components of the streamlined preplanning process revolve around the change from considering individual tracts to considering entire planning areas, and the change from reliance on the government to establish leasing areas to reliance on competitive market interests.

c) Issues

The crux of issues surrounding OCS development, particularly in frontier areas, is the required balancing of environmental risks and developmental benefits. Recently, this discussion has focused on the proposed five-year leasing schedule. Foremost among the areas of contention is the proper timing of OCS lease sales in Alaskan frontier areas. While industry would generally like to see faster leasing than has been proposed, environmental groups would like to see some of the Alaska sales delayed or indefinitely postponed and State officials have expressed timing concerns as well. At issue are: (1) sensitive biological resources and high biological productivity, especially in the southern Bering Sea; (2) the status of local coastal zone planning, especially in areas where little infrastructure currently exists; (3) effects of OCS development upon Alaska Natives, including subsistence resources; and (4) ability of technology to operate in harsh environments in Alaska, particularly in Arctic ice conditions.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Minerals Resources

Field Administrators: Office Managers, OCS Offices in Anchorage, New York, New Orleans, and Los Angeles.

2) Authorizing Legislation

Outer Continental Shelf Lands Act of 1953, P.L. 83-212, 43 U.S.C. 1331-1343; National Environmental Policy Act of 1969, P.L. 91-190, 43 U.S.C. 4321, 4331-4335; Outer Continental Shelf Lands Act Amendments of 1978, P.L. 95-372, 43 U.S.C. 1331 *et seq.*, 1801 *et seq.*; The Department of the Interior and Related Agencies Appropriation for fiscal year 1981, P.L. 96-514, 94 Stat. 2957; Alaska National Interest Lands Conservation Act of 1980, 96-47, 94 Stat. 2371.

3) Funding

	1980	1981	1982 Planned
Authorization (\$000's)	70,165	75,475	81,060
Appropriation (\$000's).....	51,653	51,256	39,738

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Energy and Minerals Management

Subactivity: Energy Offshore

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars				
(\$000's)	44,964	53,752	58,354	39,738
Work Years.....	329	352	311	243

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	*1982 Planned
Studies.....	96	92	93	60
Final Environmental Statements	3	5	5	6
Lease Sales	4	7	7	7

*Based on July 1981 proposed 5-year OCS oil and gas leasing schedule.

e) Audits/Evaluations Completed

Organization:	General Accounting Office (GAO)
Title and Date:	Issues in Leasing Offshore Lands for Oil and Gas Development, March 26, 1981, (EMD-81-59)
Major Findings:	GAO found that despite significant increases in the 1970s for leasing of OCS oil and gas, accelerated leasing goals were not met. Two major factors affecting the achievement of these goals were environmental issues and limited industry interest. These controversial issues of the 1970s continue and may limit attainment of current plans for further increases in leasing through 1985. GAO recommends that Interior continue efforts to offer more land for lease and to streamline the leasing process.
BLM Action:	The new proposed Five-Year OCS Leasing Schedule fully incorporates the streamlining concept recommended by GAO. In addition, an ongoing activity of the OCS program is to explore alternatives for leasing more of the tracts offered in a sale. BLM also agrees with GAO that the rationale for the withdrawal of offshore lands from leasing be reexamined.

f) Audits/Evaluations Underway

Organization:	General Accounting Office (GAO)
Title:	Evaluation of Interior's Accelerated OCS Leasing Program and Streamlined Leasing Procedures

B.3. COAL MANAGEMENT

a) Program Description

In the western United States as much as 60 percent of the coal resources is owned by the Federal Government, principally in the States of Colorado, Montana, New Mexico, North Dakota, Utah and Wyoming. By the end of FY 81, a total of 840,938 acres was covered by 575 leases containing an estimated 17.5 billion tons of Federal coal.

The current Federal coal management program utilizes a sequential process, emphasizing land use planning, surface owner consent, and activity planning for leasing. Comprehensive land use planning identifies areas that are environmentally acceptable for leasing, eliminating from consideration those areas that contain unique site-specific resource values that are clearly more significant than the coal resource. In addition, qualified surface owners are consulted during land use planning to determine whether a significant number have a preference against surface mining. If so, the lands involved may be dropped from further consideration for leasing.

Activity planning follows completion of the land use plans and involves ranking and selection of a sufficient number of potential coal leasing tracts within the coal region to meet the regional leasing targets. A Federal/State Regional Coal Team is established in each region and is responsible for ranking and selecting tracts for recommendation to the Secretary for leasing. The Secretary makes his decision after a regional environmental impact statement is completed and each affected State is consulted.

Strong input from industry, other Federal agencies, State and local governments and the public is an essential and integral element of the program. The program also includes "leasing by application" within Federal coal regions under emergency conditions (e.g., where Federal coal would otherwise be bypassed) and outside Federal coal regions where regional competitive leasing is impractical. Other aspects of the program include processing of pending preference right lease applications (PRLA's), processing coal exploration license applications, and action on coal exchanges.

In FY 1981, a review of the program was initiated in response to the Secretary's call for examination of cumbersome and burdensome regulations. This review continues and its status is highlighted later in this section.

b) Progress Report

Through the "leasing by application" component of the program, seven lease sales were held and four new leases containing approximately 56.3 million tons were issued during the fiscal year. Three PRLAs covering an estimated 117 million tons were also issued.

Competitive lease sales were held during the fiscal year in three federal coal regions: the Green River-Hams Fork; the Unita-Southwestern Utah; and the Alabama Subregion of the Southern Appalachian Region.

- In January 1981, the first regional competitive lease sales were held on six tracts containing 87.9 million tons within the Green River-Hams Fork Federal Coal Region. High bids on the three Colorado and three Wyoming tracts totaled \$1,740,427. The Colorado tracts included the first small business set-aside lease sale in the program. Two follow-on sales in April covered another 64.37 million tons, and preparations are underway for another follow-on lease sale to be held in FY 1982.
- Completion of land use and activity planning in the Unita-Southwestern Utah region culminated in the sale on July 30, 1981, of coal in five tracts containing an estimated 79.68 million tons. High bids totaled \$4,710,335.
- In the Alabama Subregion of the Southern Appalachian Region six coal leases containing 37.7 million tons were sold on June 25, 1981, with total high bids of \$180,536. Two of these tracts were Small Business Administration tracts. A decision was also made to hold the first lease sale under the "public bodies" provision of the Federal Coal Leasing Amendments Act.

In addition, Fort Union Region tract delineation was finished by September 3 and site-specific analysis by September 16. Activity planning is scheduled for completion in FY 82, with the sale scheduled for June 1983. The draft EIS for the Powder River Region was filed on July 21, 1981, and activity planning is continuing for an April 1982 sale. Activity planning in the San Juan Region is scheduled for FY 82.

BLM is continuing the investigation and resolution of cases of unauthorized removal of Federal coal in Alabama. One case was settled in 1981 through the payment of \$520,000 plus interest to the United States. Lawsuits to recover monetary damages have been filed in six cases and administrative claims to recover more than \$4 000,000 in nine other cases are in progress. BLM is continuing a program to identify potential coal trespass in the eastern states through the use of satellite imagery.

BLM is also preparing Memoranda of Understanding with eastern States that would provide for the exchange of information that could be used to detect and resolve coal trespass in those States.

c) Issues

In January 1981, the Secretary asked the user industries, State Governments, and the public to identify regulations and procedures that hinder the responsible and efficient production of federal resources to meet national needs. In April, based on a review of the responses, the Secretary ordered a comprehensive review of the Federal coal management program to streamline the existing rules and make the leasing process more efficient. Critical issues were identified and analyzed and, from this analysis, draft rules were developed following an internal review within the Department of the Interior and review by Governors of the coal States.

Among the issues to be decided by the Secretary are the following:

- the process for establishing leasing levels and the role of the regional coal team in that process;
- the solicitation of coal resource data and indication of leasing interest from industry;
- the composition and application of the unsuitability criteria;
- the identification of areas for possible coal leasing; and
- the modification of the emergency leasing criteria.

Proposed rules reflecting the Secretary's decisions were published in late 1981.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrator: State Directors, especially Colorado, Montana, New Mexico, Utah, Wyoming, and Eastern States

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1711, 1712, 1713; Mineral Lands Leasing Act, P.L. 66-146, 30 U.S.C. 181 *et seq.*, as amended, by Federal Coal Leasing Amendments Act of 1976, P.L. 94-377; and the Act of October 3, 1978, 92 Stat. 2073; Surface Mining Control and Reclamation Act of 1977, P.L. 95-87, 30 U.S.C. 1201-1328 es-

pecially 1251-1279; Department of Energy Act of 1977, P.L. 95-91, 42 U.S.C. 7152(b); Clean Air Act Amendment of 1927, P.L. 95-95, 42 U.S.C. 7401 *et seq.*, including P.L. 95-190; The Department the Interior and Related Agencies Appropriation for fiscal year 1981, P.L. 96-514, 94 Stat. 2957; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat. 2371.

3) Funding

	1980	1981	1982 Planned
Authorization (\$000's).....	22,721	24,191	27,041
Appropriation (\$000's)	22,380	29,300	17,757

4) Appropriation Structure

Title: Management of Lands and Resources
 Activity: Energy and Minerals Management
 Subactivity: Energy Onshore
 Component: Coal

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	23,809	30,655	26,706	17,757
Work Years.....	364	485	398	359

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Environmental Statements	5	14	3	6
Environmental Assessments	67	123	76	145
Trespass	9	24	9	6
Use Authorizations (Includes coal leases and exploration licenses).....	168	220	236	191

e) Audits Completed

Organization: General Accounting Office (GAO)
 Title and Date: Simplifying the Federal Coal Management Program, August 20, 1981, (EMD-81-109)

Major Findings: GAO found that development of coal under federal leases and processing of pending lease applications could be speeded up and the administrative burden on the Department of the Interior reduced — by simplifying many of the procedures for administering the leases and processing the lease applications. GAO made several recommendations aimed at recognizing: 1) the limitations that "real world" economic and geologic factors place on lessee ability to comply with existing procedures; 2) similar difficulties for the Department of the Interior in administering the regulations; and 3) opportunities to generally simplify and streamline present lease administration processes.

BLM Action: GAO's conclusion and recommendations are generally identical to those incorporated into the rulemaking being considered for the federal coal management program. These actions should streamline regulatory procedures and simplify information requirements for effective management of federal coal resources.

f) Audits/Evaluations Underway

Organization: General Accounting Office (GAO)
 Title: Estimating the Fair Market Value for Coal Lease Tracts

B.4. OIL SHALE LEASING

a) Program Description

Efforts to develop oil shale have fluctuated greatly over the past 65 years. World War I prompted a flurry of claim staking under provisions of the Mining Law. During World War II, interest in oil shale resulted in the enactment of the Synthetic Liquid Fuels Act of 1944. Under the Act, the Bureau of Mines began developing extraction technology at Rifle, Colorado, and Laramie, Wyoming. Since then, private industry has taken over refinement and adaptation of technologies.

In 1974, BLM issued four oil shale leases—two in Utah and two in Colorado. The leases were issued as part of the Department's Oil Shale Prototype Leasing Program. One objective of this program was to issue a limited number of leases in order to stimulate the development of commercial oil shale technology by private industry. Another objective was to develop the environmental safeguards and management expertise in oil shale leasing and supervision necessary for a possible mature oil shale industry in the future.

The 25,000-square-mile Green River formation in northwestern Colorado, northeastern Utah, and southwestern Wyoming contains oil shale with a total estimated potential of almost two trillion barrels. Of the total area, 17,000 square miles are believed to have deposits 10 feet thick with an average yield of 25 or more gallons per ton, for an estimated 731 billion barrels of commercially developable shale oil. Approximately 83 percent of the formation is in Colorado, 9 percent in Utah, and 8 percent in Wyoming. Roughly 80 percent of this oil shale is on Federal land. The other 20 percent was transferred to private, State, or Indian ownership under the 1872 Mining Law which governed disposal of minerals on public land before 1920 when the Mineral Leasing Act provided new authority for leasing Federal oil shale lands. In the absence of commercial prospects, however, these lands were withdrawn from mineral leasing in 1930. Except for two special sales involving four tracts in 1974, there has been no leasing. In 1968, oil shale lands were withdrawn from location of other minerals under the Mining Law to preclude legal entanglements which the Mining Law of 1872 can generate.

b) Progress Report

Development of the two Colorado prototype leases is proceeding. The first test retort was ignited October 8, 1980 on tract C-a. Mine development is proceeding on tract C-b. Detailed development plans for tracts U-a and U-b in Utah, are in preparation. Development of the tracts will proceed when a court injunction is lifted.

Industry applications for Federal actions (access across public lands, Federal guarantees, leases of adjoining public lands) to facilitate development on private land have increased dramatically. BLM is now preparing several environmental impact statements (EISs) to facilitate this development and accommodate all such requests to allow industry to meet its development schedules. For example, the Colony project in Colorado is expected to start commercial production in 1985 as the Nation's first commercial oil shale operation. Chevron oil shale operations in Colorado will start shortly thereafter,

with plans to be in full production by 1991. The EIS work has been completed on the Colony project and will begin shortly for the Chevron project. The Utah State Office is preparing a basin-wide EIS covering all such requests requiring their approval.

c) Issues

Legal issues continue to have an effect on oil shale leasing. The decision in the *Andrus v. Shell Oil* case set the legal standard for discovery of a valuable oil shale deposit, which has been applied by the Board of Land Appeals. In another case, which involves the assessment work provisions of the Mining Law and their effect on title to oil shale claims, the Supreme Court directed the lower courts and the Department of the Interior (DOI) to further clarify the issues. Interior's Board of Land Appeals has applied the Supreme Court's standard of "substantial compliance" with the assessment work requirement in *United States v. Bohine*. This decision, and the Board's decision on discovery, are pending before the U.S. District Court in Colorado.

Development of the fundamental technology of oil shale is well advanced, but still lacks testing at commercial scale. Nevertheless, a wide array of economic, environmental, and some technological uncertainties remain. DOI proposed legislation in 1981 concerning off-site waste disposal, lease size, and related issues in the belief that legal changes are necessary so that the flexibility to meet the challenges of development is maintained. This legislation is still under consideration by Congress. Experience to date suggests that the current maximum acreage of oil shale leases may be insufficient for commercialization in areas where shale deposits are relatively thin.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors, Colorado, Utah and Wyoming

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1701, *et seq.*; Mineral Leasing Act of 1920, P.L. 66-146, 30 U.S.C. 181 *et seq.*, especially 241; The Department of the Interior and Related Agencies Appropriation for fiscal year 1981, P.L. 96-

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	910	930	1,046
Appropriation (\$000's)	500	*4,523	3,616

*This figure includes \$4,000 in oil shale supplemental received later in the fiscal year.

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Energy and Minerals

Subactivity: Energy Onshore

Component: Oil Shale

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	308	516	*1,809	3,616
Work Years	9	6	23	55

*Actual obligations as a result of oil shale supplemental totaled \$4,431.

6) Performance

N/A

B.5. TAR SANDS LEASING

a) Program Description

Nationwide, tar sands resources represent two billion barrels of recoverable oil of the estimated 30 billion barrels of oil in place. Using present technology, a minimum of 100 to 200 million barrels can be recovered from sands by surface mining. The rest will probably require underground or *in situ* techniques for recovery. Over 90 percent of both the in-place and recoverable tar sands deposits occur in Utah. The five major tar sands areas are all principally on Federal lands, some of which are intermingled with State lands.

In 1960, Congress amended the Mineral Lands Leasing Act to provide the first specific authority for leasing tar sands and other solid and semisolid hydrocarbon substances. However, the authority was placed under Section 21 (oil shale), rather than Section 17 (oil and gas), resulting in legal and administrative ambiguity.

The Department of the Interior has not issued tar sands leases since 1965 because of the inability of geologists to physically distinguish tar sands from conventional oil prior to well completion. As a result, a legal conflict over lease rights can occur because of overlapping resource definitions and ownership of development rights. So far, there has not been a great deal of pressure on the Department of the Interior to resolve these conflicts because of the disappointing results from *in situ* recovery field testing. Recently, the economics of development have become more favorable, in part because oil prices have risen faster than estimated development costs.

b) Progress Report

On August 26, 1980, the Department decided to end the moratorium on tar sands leasing and begin immediately to prepare for leasing under Section 21 of the Mineral leasing Act. The objectives of this program are to provide a new and potentially significant source of energy to the nation while insuring the environmental integrity of development through safeguards and reclamation techniques that will be incorporated into the planning of a mature tar sands industry.

The Geological Survey has designated 11 areas of known tar sands deposits for leasing consideration. (See *Federal Register* Vol. 46, No. 13, January 21, 1981.) Initial leasing will probably be limited to two areas which are chosen on the basis of environmental safety and resource quality. Prior to leasing, an environmental impact statement will be completed on the proposal to lease certain areas and the alternatives to the proposal.

c) Issues

The Department of the Interior has supported legislation to provide for issuance of "combined hydrocarbon leases" under Section 17 of the Mineral Leasing Act as a means of facilitating the issuance of tar sands leases. The Combined Hydrocarbons Leasing Act of 1981 was passed October 29, 1981. In addition to the establishment of combined hydrocarbon leases, the Act allows the noncompetitive conversion into combined hydrocarbon leases of existing oil and gas leases upon presentation of an

acceptable plan of operations. However, all new combined hydrocarbon leases in areas designated as tar sands areas would be competitive. The lease term for conversions could run for up to 10 years. The Secretary will issue final regulations providing for lease conversion within six months of the effective date of the bill.

d) Budget and Performance Analysis

The Tar Sands program was funded as part of the Oil Shale program in FY 81.

B.6. GEOTHERMAL LEASING

a) Program Description

Some 60 percent of the known or potential geothermal resources of the Nation are on Federal land. Responsibility for the Federal government's overall geothermal effort is shared by the Departments of the Interior, Agriculture, and Energy. Within the Interior Department, BLM issues leases, prepares prelease environmental reviews, and collects rentals. The Geological Survey monitors and prepares environmental analyses of all post-lease exploration and development, identifies potential geothermal resources for competitive bidding purchases, assists in determining fair market value for use of the resources, and collects royalties.

Leasing within known geothermal resources areas (KGRAs) is based on competitive bonus bidding. Lands outside of known geothermal resources areas are leased to the first qualified applicant. All leases are for ten years.

California, Idaho, Nevada, and Oregon are the most promising States for future geothermal development. The Geysers Field, developed almost entirely on private land 80 miles north of San Francisco, already is one of the most dramatic and successful examples of geothermal technology in the world, providing residential electricity to over 800,000 people. Since leasing started in 1974, 134 wells have been drilled on Federal lands, and 67 have been found to be capable of producing commercial steam or hot water. All but 19 are now shut in pending construction of utilization facilities.

b) Progress Report

Over 3.5 million acres (2000 leases) have been leased noncompetitively, and over 700,000 acres (400 leases) have been leased competitively. However, over one million acres have been relinquished or terminated since leasing began in 1974, primarily

due to the legislated maximum acreage limitation per state.

In FY 81 two important measures were undertaken to accelerate the geothermal leasing program. The first of these was a review of existing regulations. Revisions have been drafted and will be proposed as a means of eliminating unnecessary, burdensome, and counterproductive regulations without sacrificing environmental goals. Second, a series of streamlining projects were cooperatively initiated between BLM, USGS, and USFS.

Four major interagency streamlining projects are nearing completion. They are as follows:

- Revise environmental review procedures. BLM developed detailed procedures for minimizing environmental review costs and time prior to lease issuance. Regulatory changes will be proposed in the *Federal Register* providing that, whenever possible, for noncompetitive leases, compliance with NEPA will be accomplished primarily at the time plans for operation are received, rather than at the time the leases are issued.
- Develop new BLM/FS/GS Memorandum of Understanding (MOU). The new MOU is expected to be signed in early FY 82. It stresses agency response times at each step of the leasing and permitting process. It also reduces paperwork and eliminates unnecessary coordination steps.
- Establish guidelines for use of special stipulations. A separate MOU has been drafted addressing the writing and use of special stipulations that are attached to leases. This MOU should be signed in FY 82.
- Establish a leasing schedule for FY 82. BLM and USFS field offices have submitted projected schedules. These schedules are being reviewed to assure conformance with Departmental directives.

The above projects are intended to eliminate the lease application backlog and offer all unleased KGRA parcels in FY 82.

c) Issues

A major issue involves the maximum acreage limitation per state. The current limitation of 20,480 acres has been a severe impediment to developers who generally require a stronger land position before investing the large amounts of capital needed for exploration. The Department has supported provisions in a number of bills that would raise the acreage limit but, as yet, none has been enacted.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors, especially California, Nevada, and Oregon

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1701 *et seq.*; especially 1701, 1702, 1711, 1712; Geothermal Steam Act of 1970, P.L. 91-581, 30 U.S.C. 1001 *et seq.*; The Department of the Interior and Related Agencies Appropriation for fiscal year 1981, P.L. 96-514, 94 Stat. 2957; Akaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat. 2371.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	2,563	2,653	2,872
Appropriation (\$000's).....	1,962	2,561	2,233

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Energy and Mineral

Subactivity: Energy Onshore

Component: Geothermal

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	1,870	2,707	2,194	2,233
Work Years	49	74	58	66

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Competitive sales	4	9	4	17
Competitive leases issued.....	19	55	41	190
Noncompetitive leases issued	297	300	264	1,600
Power plant licenses.....	0	1	0	2
Post-lease actions.....	125	150	154	200
Nonelectrical use licenses.....	0	2	0	2

e) Audits/Evaluations Completed

Organization: General Accounting Office (GAO)

Title and Date: The Impact of Geothermal Development on Stockraising Homestead Landowners, April 16, 1981, (EMD-81-39)

Major Findings: GAO found that surface use and compensation conflicts have developed at the Geysers in California between landowners and geothermal lessees. The land involved is only a small portion of the total acreage in the Geysers and is not likely to affect the overall geothermal development in that area. However, resolution of conflicts could set a precedent and affect future geothermal development as well as other mineral development elsewhere. Several recommendations were made to the Secretary of Interior regarding these problems.

BLM Actions: BLM is considering a regulatory change that would require BLM to attempt to contact surface owners prior to offering or issuing leases. BLM will continue to encourage lessees to cooperate with surface owners regarding compensation for damages to crops and other tangible improvements.

f) Audits/Evaluations Planned

Organizations: Office of the Inspector General (OIG)

Title: Review of BLM Geothermal Program

B.7. NONENERGY MINERALS

a) Program Description

Since the early days of mineral exploration and development, the public lands have been the primary source of nonenergy mineral production in the United States. The Federal onshore mineral estate consists of approximately 822 million acres of public and acquired lands and lands that have been patented but in which subsurface mineral rights have been reserved by the Federal government. However, a considerable part of the public lands has been classified by various legislative or administrative actions that prohibit or restrict nonenergy mineral development.

Federal minerals are made available under four laws: by mining claim location under the Mining Law of 1872, by lease under the Mineral Leasing Act of 1920 and the Acquired Lands Act of 1947, and by sale under the Materials Sales Act of 1947. In the lexicon of public land management, they are often described as locatable minerals, leasable minerals, or salable minerals.

The Mining Law of 1872 encourages the search and discovery of hardrock mineral deposits on public lands by means of a location/patent system. The discoverer of a valuable mineral deposit has the right to acquire fee title to the acreage of a lode or placer claim. The rarity of hardrock minerals, the high-risk nature of exploration, and the national benefits derived from the discovery are all important elements in the self-initiation aspect of the 1872 Mining Law.

The Mining Law does not itself define a valuable mineral deposit. The Department, affirmed by the Supreme Court, defined it by "the prudent man rule" i.e., where minerals have been found and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of labor and means with a reasonable prospect of success in developing a valuable mine.

Until 1976, when the Federal Land Policy and Management Act (FLPMA) was passed, claimants generally filed their location notices and other claim records only with county clerks. As a result, the Federal government had no official record of the number, location, or identity of claims or claimants. FLPMA, however, requires a claimant to file with BLM a copy of the location notice and to file annually thereafter, with BLM, evidence that the claim is not abandoned.

FLPMA also requires that claims located prior to October 21, 1976, must have been recorded with BLM on or before October 22, 1979. By that statutory deadline, 1,087,376 mining claims were record-

ed with BLM. By 1981, over 1.4 million claims were recorded.

In addition to the leasing of energy minerals, the Mineral Leasing Act provides for both competitive and noncompetitive leasing of nonenergy minerals. Leases have a 20-year term, may cover a maximum of 2,560 acres, and can be renewed. Prospecting permits are issued prior to the issuance of noncompetitive leases and discovery of a valuable deposit entitles the permittee to a lease without competition. A variety of rental and royalty provisions apply, varying with the mineral involved. Unlike coal or oil and gas, there are no diligent development requirements under these leases.

The Materials Sales Act makes sand, gravel, and building stone available for commercial use. They are sold either competitively or noncompetitively. Some sales are made to individuals for exclusive rights to a site. Other sales are made for material from common use areas or community pits. Governmental agencies and nonprofit organizations may be granted such materials at no charge under a free-use permit.

In order to meet the policy expressed by Congress in Sections 102 and 103 of FLPMA, which require that BLM protect scientific values on the public lands and protect life and property from geologic hazards, a geology program was established in FY 78. This program is designed to give recognition to non-mineral geologic resources such as paleontology, groundwater, and geologic processes and features as well as to identify geologic hazards and mitigate their dangers. The program includes the inventory of the resources and hazards, protection of important geologic and paleontologic sites, protection of the public from geologic hazards, interpretation of geologic phenomena for the public and monitoring groundwater development and use.

On March 3, 1980, regulations (43 CFR 3802) were effected to "prevent impairment (from mining activities) of the suitability of lands under wilderness review for inclusion in the wilderness system." Provision is made for continuing mining operations which were in effect on October 21, 1976. These regulations affect about 24 million acres of land and are applicable to those minerals that are locatable under the mining laws. The Solicitor issued an opinion concerning "grandfathered" mining operations on October 5, 1981. The opinion defined "valid existing rights" to include a valid mining claim, an oil and gas lease, and a right-of-way authorization. Those rights created prior to October 21, 1976 may be exercised, with activities regulated to afford environmental protection. Nevertheless, even if such activities impair an area's suitability, they must be allowed to proceed.

b) Progress Report

Final regulations governing mining activity on other public lands (43 CFR 3809) became effective January 1, 1981. These regulations provide a procedure for miners to notify BLM of activity on mining claims and also establish standards for the conduct of mining activities, including reclamation.

Proposed regulations were issued on March 11, 1980 which would amend the trespass regulations (43 CFR 9230) to take care of the mineral trespass problem. The regulations will include a requirement that persons who trespass on Federal lands to extract leaseable or salable minerals without authorization will pay for damages to the mineral estate and either reclaim the Federal lands affected or pay for the reclamation of such lands. Final regulations will be issued in FY 82.

Over nine million acres of public lands have been inventoried for paleontologic resources as of FY 81. Within these inventoried acres, three internationally significant sites were identified, and a new species of dinosaur discovered. One highly significant geologic site was also identified. Two of these sites are now under special management plans. The other two sites will have plans developed in FY 82 or FY 83.

With the enactment of the National Materials and Minerals Policy, Research and Development Act, on October 21, 1980, BLM was brought into the national effort to "promote an adequate and stable supply of materials necessary to maintain national security, economic well-being and industrial production . . ." The Act, which reaffirms the provisions and requirements of the Mining and Minerals Policy Act of 1970, puts specific requirements on several departments of the Executive Branch.

To ensure that geology, energy, and mineral resources are fully considered in land use planning and other BLM decisionmaking processes, BLM established a program for geology and mineral assessment in FY 81. This program (effective in FY 82) will develop standards for the geology, energy, and mineral resource information necessary for land use planning and develop policy guidance for the consideration of mineral resource values in planning and decisionmaking. These activities will help assure that lands valuable for mineral resources are identified in a timely manner and properly considered in the development of land use plans, and thus are available for exploration and development as the market requires.

c) Issues

The availability of important nonfuel minerals has been overshadowed by the critical energy mineral

problems since the 1973 oil crisis. However, the domestic shortage of many nonenergy minerals has produced an unfortunately similar dependence upon foreign supplies. Although many factors contributing to this foreign dependence are beyond the ability of BLM to influence, the resource potential of the public lands is an issue which BLM can address. BLM must ensure that it provides maximum opportunity for the explorational development of and access to mineral-rich public lands.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1701 *et seq.*; Mining Law of 1872, Revised Statutes 2318-21, 30 U.S.C. 21, *et seq.*; Mineral Leasing Act, P.L. 66-146 30 U.S.C. 181 *et seq.*; Materials Sales Act, P.L. 80-291, 30 U.S.C. 601 *et seq.*; The Department of the Interior and Related Agencies Appropriation for fiscal year 1981, P.L. 96-514, 94 Stat. 2957; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat. 2371; Acquired Lands Leasing Act of 1947, 30 U.S.C. 351.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	11,184	15,544	14,124
Appropriation (\$000's)	8,430	9,776	7,782

FUNDING

	1980 Actual	1981 Actual	1982 Planned
MINERAL LEASING			
Authorization (\$000's)	2,320	2,450	2,672
Appropriation (\$000's)	2,050	2,172	1,533
MINING LAW ADMINIS- TRATION			
Authorization (\$000's)	6,893	10,958	9,208
Appropriation (\$000's)	4,310	5,247	4,457
MINERAL MATERIALS			
Authorization (\$000's)	1,971	2,136	2,244
Appropriation (\$000's)	2,070	2,357	1,792

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Energy and Minerals

Subactivity: Non-Energy Onshore

Components: Mineral Leasing, Mining Law Administration, Mineral Materials

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	8,573	9,582	9,401	7,782
Work Years	251	257	294	307

PROGRAM COSTS

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
MINERAL LEASING				
Dollars				
(\$000's)	755	2,322	1,723	1,533
Work Years	23	29	50	34
MINING LAW ADMINISTRATION				
Dollars				
(\$000's)	4,181	5,048	5,249	4,457
Work Years	114	135	170	207
MINERAL MATERIALS				
Dollars				
(\$000's)	3,638	2,212	2,429	1,792
Work Years	114	95	74	52

6) Performance

MINERAL LEASING

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Use authorizations	610	305	408	434
Environmental analyses and field exams completed	100	100	151	100
Compliance checks conducted	75	75	58	75

MINING LAW ADMINISTRATION

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Plans of Operation Revised	-	-	-	450
Notices Reviewed	-	-	-	3,000
Mineral patent applications processed	190	190	200	190
Mining Claims Recorded	-	-	-	200,000
Environmental Analyses completed	380	356	226	384
Filings (other than mining claims)	988	3,365	3,059	3,453

MINERALS MATERIALS

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Sales contracts issued	2,100	2,100	2,960	2,100
Trespass cases processed	50	50	47	50
Compliance checks conducted	1,100	1,100	1,673	1,100
Environmental assessments completed	560	560	425	569

e) Audits/Evaluations Completed

Organization: General Accounting Office (GAO)

Title and Date: Improvements in Department of the Interior Leasing of Potential Aluminum Resources are Necessary for More Timely Decisionmaking, September 10, 1981, (EMD-81-135)

Major Findings:

GAO found that excessive and unnecessary delays in processing alunite prospecting permits and preference right lease applications in several western states have frustrated development of a potential domestic aluminum resource. The corrective measures being initiated by BLM for nonfuel mineral leasing may help, but being limited to BLM alone, do not address the larger question of cumulative evaluation or review of restrictive decisions as they affect an entire resource industry. This case reflects that forward-looking, anticipatory policymaking may be essential to effectively deal with new low-grade resources.

f) Audits/Evaluations Underway

Organization:	General Accounting Office (GAO)
Title:	Need for Legislative and Administrative Actions to Assure Availability of Non-fuel Minerals
Organization:	General Accounting Office (GAO)
Title:	Planning for Mineral Development in the California Desert Conservation Area



C. Renewable Resources

C. RENEWABLE RESOURCES

C.I. LIVESTOCK GRAZING MANAGEMENT

a) Program Description

The Bureau of Land Management administers grazing use by domestic livestock on 170 million acres of public rangelands in the 11 western States (exclusive of Alaska). Rangelands are lands on which the native vegetation is predominantly grasses, grasslike plants, forbs, or shrubs. Grazing permits are issued for up to ten years and authorize the annual grazing use by approximately 22,000 livestock operators.

In addition to the mandates in FLPMA, BLM's range-land management program is guided by the Taylor Grazing Act (TGA) of 1934 and the Public Rangelands Improvement Act (PRIA) of 1978. These Acts outline the following broad goals for the Bureau's programs in rangeland management and improvement:

- To regulate livestock grazing use of the public rangelands in order to achieve balanced use and sustained resource productivity.
- To protect the rangeland resources from degradation through sound land use.
- To make rangelands more productive through sound land use allocations among competing uses of vegetation and by making cost effective investment and management decisions.
- To make decisions in consultation, cooperation, and coordination with the lessee/permittees involved, the affected landowners, interest groups, individuals, and other agencies.
- To make sure that improvements in rangelands benefit all public land users.

The Bureau has conducted soil and vegetation inventories at varying intensities and with various techniques since it was created in 1946. By 1976, it was apparent that a uniform process was needed to standardize both 1) methods, and 2) the kind and amount of data collected, stored, and used in making decisions. After extensive review of current methods in use, the Soil-Vegetation Inventory Method (SVIM) was adopted in its present form in 1979. It has been in use for three field seasons.

b) Progress Report

Recent emphasis in the rangeland management program has evolved around the judgement of the District Court in the *Natural Resources Defense*

Council, Inc., et al. v. Rogers C.B. Morton, et al. lawsuit which required BLM to prepare 144 site specific environmental impact statements (EISs) by 1988. BLM is essentially on schedule in meeting this order, having filed 50 EISs by September 30 1981. These EISs have addressed livestock grazing on 68 million acres of public lands in ten states; an additional 20 EISs, covering 26 million acres, will be completed in FY 82.

The 50 land use plans completed as of FY 81 reduced the authorized AUMs (grazing preference) by 24 percent. Because some livestock operators do not use their full authorization, the overall reduction in actual use, averaged over a five year period, was 14 percent.

The following changes were made to allotments in the 50 planning areas:

- 10 percent scheduled for increases in animal-unit-months (AUMs).
- 53 percent scheduled for decreases in AUMs.
- 37 percent scheduled for no change.

During the past two years, the National Academy of Sciences, under a contract with BLM, conducted six symposia focused on technological issues in rangeland management. These symposia brought together prominent scientists and researchers, in a workshop environment, with personnel from the BLM, FS, Soil Conservation Service (SCS), and other land management agencies. The Academy is now preparing summary reports for BLM's use in revising existing or developing new procedures and policies.

Authorized by Section 12 of PRIA, two Experimental Stewardship Areas, the Randolph Area in Utah and the Tonopah Area in Nevada, were established in FY 81. These were added to the three existing areas, Challis, Idaho; East Pioneer, Montana; and Modoc-Washoe, California/Nevada. The two new areas are administered solely by BLM; the previous three are administered jointly by BLM and FS. In addition, numerous small projects are being evaluated with individual livestock operators. The focus of attention has been placed on opportunities for cooperative efforts between livestock operators and the concerned Federal and State agencies. Such cooperative efforts have been successful in resolving a number of conflicts.

By the end of FY 81, approximately 74 million acres of public land had been inventoried by the Soil-Vegetation Inventory Method (SVIM). This inventory is required to make initial decisions about land use and as a basis for monitoring studies. In FY 82 it is expected that an additional 16 million acres will be

inventoried, expanding the area covered to 90 million acres.

c) Issues

A major issue in FY 81 was the development of the new Rangeland Management Policy. The policy, still in draft form, is intended to be more efficient and cost effective in meeting the objective of managing livestock grazing to protect and improve rangeland condition and productivity. Part of the rationale behind the preparation of the draft policy was that inventory costs were very high when compared to the level of decisions being made. Another reason for the new policy was that the former use of production inventories as a basis for allocations had been challenged by various interest groups.

The main features of the new draft policy are as follows:

- The grazing portion of land use plans and related EISs will be prepared at a level more consistent with the existing data base and identified resource conflicts. Additional inventory and production data would be collected only as the need for such information is developed through the planning process. Soil and vegetation information would continue to be collected and used as a basis for all land use plans and as a benchmark to evaluate management actions.
- Allotments would be classified on the basis of their present condition, their potential for improvement, existing resource conflicts, adequacy of present management, and their potential for economic return on range improvement investments. This classification would then be used to set priorities for management and expenditures.
- BLM would have up to five years to phase in livestock adjustments needed to improve the condition of allotments. Throughout the adjustment period, allotments would be monitored to measure the effects of the adjustments and other management actions. As the condition of the allotment improved, decisions affecting grazing capacity and management programs would be revised accordingly.

Grazing fees collected for public land use remain an issue. The fee is calculated annually, using a formula provided in the Public Rangelands Improvement Act (PIRA). In 1981 the fee was \$2.31 per Animal Unit Month (AUM), down from \$2.36 in 1980. PRIA requires a joint BLM-Forest Service (FS) report evaluating the present fee structure and making recommendations for 1986 and subsequent years, by 1985.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors, District Managers

2) Authorizing Legislation

Federal Land Policy and Management Act P.L. 94-579, 43 U.S.C. 1701 *et seq.* especially 1701, 1702 1711, 1712, 1751-1753; Taylor Grazing Act, P.L. 73-482, 43 U.S.C. 35; Public Rangelands Improvement Act, P.L. 95-514, 43 U.S.C. 1901. The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat 2957.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	35,965	43,106	41,135
Appropriation (\$000's).....	37,360	44,955	35,620

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Renewable Resources

Subactivity: Range Management

Component: Grazing Management

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	34,715	44,039	41,679	35,620
Work Years	1,104	1,317	1,140	981

6) Performance

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Grazing EIS's Completed (#)	15	17	13	19
Millions of Acres Inventoried.....	22.0	21.6	16.2	20.5
AMP's Implemented (#)	103	270	218	288
AMP's Supervised (#)	1,321	1,424	1,465	1,683
Grazing Permits Issued (#)	26,332	23,379	26,322	24,279

e) Evaluations Planned

Organization:	Office of the Inspector General (OIG)
Title:	Review of BLM Grazing Fees Determination, Billing, and Collection Procedures

C.2. Range Improvement

a) Program Description

The Range Improvement Fund, established by the Taylor Grazing Act in 1934, provides money for range improvement and maintenance from a designated portion of the livestock grazing fee receipts. This funding procedure was reaffirmed in 1976 with passage of the Federal Land Policy and Management Act (FLPMA). Congress again recognized the importance of these funds to improve rangeland conditions and amended the Taylor Grazing Act with passage of the Public Rangeland Improvement Act (PRIA) of 1978. The Act set a minimum of \$10 million to be spent on range improvements regardless of the returns from grazing fees. Prudent rangeland investments are an effective and accepted means of meeting some of the objectives embodied in these mandates. Current BLM policy on this subject was outlined in March 1981, and is undergoing review by field personnel and interest groups prior to issuance of final guidance in FY 82.

The entire range improvement appropriation is being used for rangeland improvements to implement grazing management systems, wildlife habitat management systems, and watershed improvement and protection practices. With completion of land use planning and environmental impact statements

(EISs), decisions are made concerning orderly restoration and improvement of the rangelands.

b) Progress Report

At present, BLM maintains about 35 percent of all rangeland improvements. Now the responsibility for maintenance will be assigned to those individuals directly benefitting from the improvement. The new policy will be phased in over a period of three years and is expected to save BLM \$3.5 million each year. This money will be available to finance new improvements.

Range improvement funds must be spent in the District where they are collected. In FY 81 State Directors were given the authority to shift up to 50 percent of a given district's funds to other districts in any given year, when it is apparent that such a practice will provide maximum investment economy, meet prior commitments, or respond to critical resource problems. However, each district must receive its full entitlement over the five year period between 1982 and 1986.

c) Issues

A revised policy for using range betterment funds was proposed in FY 81. A recent report by the National Governor's Association was used in developing the proposed policy which will emphasize that range improvement funds be used primarily for on-the-ground improvement work. Under the proposed policy, money spent for such items as clerical support, resource clearance, environmental assessment, acquisition of water rights, easements, studies, or removal of wild horses or burros will come from other funds.

Currently BLM investments in range improvements are based on objectives outlined in each EIS, a cost-benefit analysis, and the appropriateness of investments in individual cases. In FY 82 BLM will develop criteria to be used to make decisions about renewable resource investments. Interim procedures will be used in the meantime. Other issues associated with improvements include defining the proper uses of funds appropriated by Congress pursuant to FLPMA and PRIA, and establishing BLM/operator maintenance responsibilities for existing and future improvements.

d) Budget and Performance Analysis (Range Improvement)

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors, District Managers

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1701 *et seq.* especially 1701, 1702, 1711, 1712, 1751-1753; Taylor Grazing Act, P.L. 73-482, 43 U.S.C. 315; Public Rangelands Improvement Act, P.L. 95-514, 43 U.S.C. 1901. The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat 2957.

3) Funding

	1980	1981	1982 Planned
Authorization (\$000's).....	N/A	N/A	N/A
Appropriation (\$000's)	10,620	13,117	13,500

4) Appropriation Structure

Title: Range Improvements

Activity: Range Improvements (Public Land, Land Utilization)

Subactivity: Range Improvements

Component: Grazing Management

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	11,055	13,500	12,326	13,500
Work Years	295	250	226	178

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Developed				
Water Facilities	387	370	779	908
Miles of Fence	459	500	690	881
Management				
Facilities.....	121	100	159	150
Projects Surveyed				
& Designed.....	1,066	1,080	1,828	1,797
Maintained				
Water Facilities	1,633	1,600	1,978	1,571
Miles of Fence	848	1,000	724	406
Management				
Facilities.....	201	200	166	102

e) Audits/Evaluations Underway

Organization: General Accounting Office (GAO)

Title: Evaluation of the Public Rangeland Improvements, Process, Costs, and Benefits

C.3. SOIL, WATER, AND AIR

a) Program Description

Protection and management of the soil, water and air resources of the public lands are basic responsibilities of BLM and are central to both the short range and long-term objectives of BLM programs. Increased environmental awareness and concern for these resources resulted in several new laws and executive orders in the last decade, among them the Federal Water Pollution Control Act Amendments, Safe Drinking Water Act, Clean Water Act, Colorado River Salinity Control Act, Clean Air Act, and the National Environmental Policy Act.

The program also supports studies and research of water quality and quantity, air quality, erosion, and watershed practices to improve the effectiveness of BLM's management of the soil, water, and air resources associated with public lands.

There are an estimated 95,000 current water sources on public lands that must be identified, quantified, and protected to ensure the continuation of a wide array of authorized public land uses dependent upon water. The soil, water, and air management program provides BLM with the capability

to inventory and conduct field investigations to identify and quantify water uses on the public lands.

b) Progress Report

In the past fiscal year, 13.8 million acres of soils were inventoried. Almost six percent of the total workload in water use identification and quantification faced by BLM is now complete.

BLM inventories and monitors climate, meteorology and air quality to support multiple use planning, prescribed burning, rangeland management, and other programs.

As a participant in the National Atmospheric Deposition Program (NADP) and the National Acid Precipitation Assessment Plan, the air resource program operates acid rain monitoring stations in eight western states. These stations have provided data essential for the development of national acid precipitation maps to determine the impacts of acid deposition in the western U.S.

c) Issues

The slowness of BLM's water inventory process is a major concern of BLM and some western States. Systematically inventoried water use and water source information is necessary to responsibly meet court-imposed water right adjudication schedules. If BLM is unable to prepare its water filings on time it delays the process for others and BLM stands to lose the use of water necessary for increasing the productivity and supporting use of public lands and resources. In recent years, the need for BLM to protect not only the surface water, but also groundwater has become increasingly important.

Air quality issues are primarily centered around the Clean Air Act requirements for the Prevention of Significant Deterioration (PSD) of air quality and the impairment of visibility in Class I areas. Allocation of increments of allowable air quality deterioration influence the future industrial development within a State, particularly energy and mineral development. To make possible full development of energy and mineral resources on public lands, an adequate share of the air quality increment must be available. Presently, states allocate air quality increments, on a first-come—first-served basis. Therefore, BLM planning and program activities must coordinate with States to assure that these needs are properly considered by the state.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: District Managers

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1701 *et seq.* especially 1701, 1702, 1711, 1712; Taylor Grazing Act, P.L. 73-482 43 U.S.C. 315; Soil Conservation and Domestic Allotment Act, P.L. 74-46, 16 U.S.C. 590a; Clean Air Act, P.L. 85-624, 42 U.S.C. 1857; Federal Water Pollution Control Act P.L. 85-514; 43 U.S.C. *et seq.* especially 1252, 1323; Public Rangelands Improvement Act, P.L. 95-514, 43 U.S.C. 1901. The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat 2957.

3) Funding

	1980 Actual	1981 Planned	1982 Planned
Authorization (\$000's).....	24,405	25,360	29,763
Appropriation (\$000's)	18,189	22,073	16,932

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Renewable Resource Development and Management

Subactivity: Soil, Water and Air Management

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	20,717	25,200	20,599	16,932
Work Years	335	343	397	296

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Millions of acres inventoried.....	20.9	22.8	18.9	34.1
Studies conducted.....	540	438	455	876
Water use identification and quantification.....	1,667	4,635	5,929	3,942

C.4. FOREST MANAGEMENT

a) Program Description

Approximately 90 million acres of the land under BLM's jurisdiction, is forest land. Most of this (64 million acres) is in Alaska where timber development has been deferred until State selection, native claims, withdrawals, and other dispositions are completed. At present, most of the land in Alaska is difficult to harvest because of the lack of transportation and distance to markets. Of the remaining 26 million acres of forest land outside of Alaska, 5 million acres are capable of producing high quality commercial timber in quantities sufficient to warrant intensive management.

The remaining 21 million acres, called "woodlands," are covered with open-grown stands of widely scattered trees. Historically, these lands have not been considered valuable commercially, although they do produce posts, poles, Christmas trees, and fuelwood. Woodlands are managed less intensively than commercial timber lands. Among the objectives of woodland management is controlling insects, disease, and trespass; and providing wildlife habitat, livestock grazing, and soil stabilization.

By far the most valuable of the timber lands managed by BLM are the 2.4 million acres in western Oregon known as the "Oregon and California (O&C) railroad grant lands" and the "Coos Bay Wagon Road (CBWR) grant lands." They were originally granted to private ownership in the 1800's for railroad and wagon road development but were returned to the Federal government when the developers failed to meet the terms of their land grants. Among the most productive forests in the country, these lands produce about 91 percent of the total board feet annually harvested from BLM forests. The timber produced on BLM lands outside of western Oregon is important to many small west-

ern communities, although it is not significant nationally.

b) Progress Report

BLM is currently updating land use and timber management plans for the 5 million acres of high-product-value timber lands under its jurisdiction. This process includes the preparation of Environmental Impact Statements for the major forested areas in western Oregon, northern California, and northern Idaho. The first of these new plans, the Josephine Unit in southwestern Oregon, was adopted in 1979. The new plan for the Jackson and Klamath Units, also in southwestern Oregon was adopted in May 1980 and is the second of nine plans scheduled to be developed for these States by 1982. The new plan for Ukiah, California, was adopted in June 1981.

Final Environmental Impact Statements for two other units, (South Coast and Curry in Oregon, and North Idaho in Idaho) have been circulated for public comment. Plans for these units are scheduled for completion in 1982.

Oregon's program to increase sale offerings of logging residues continued in FY 81. The entire backlog of residue on cut-over areas was made available for sale, and new sales continue to be held as residue becomes available.

c) Issues

Proposals to set aside timberlands for purposes that do not allow logging and consequently reduce the timber harvest continues to be a major issue. While BLM expects this issue to be raised over and over as land use plans are developed, current controversy is focused on the timber management plan for the Coos Bay, Oregon District. BLM, through its planning process has developed and analyzed a range of alternative land use allocations, with resulting timber harvest levels both above and below the current level.

Use of chemical herbicides is still a controversial aspect of forest land management. BLM's current policy is to use nonchemical methods for vegetation control where feasible, and to observe strict safety precautions where chemicals are applied. The relative costs of chemical and nonchemical control methods continues to be an issue.

Because of the currently depressed lumber market, BLM's timber sale contract extension policy has come under close scrutiny. Although BLM has traditionally maintained a firm position against extending contracts due to market fluctuations, that policy is

being reviewed. Factors important to the decision include fairness to all bidders, discouragement of speculative bidding, flow of income to the O&C Counties, and disruptive effects of delayed harvest on BLM's reforestation program.

Another issue is funding of the forest management program on the O&C and CBWR lands. Under present procedures, annual budget authority is based upon timber sales receipts for the current fiscal year. Therefore, annual activity plans are based on an estimate of the coming year's receipts while funding is actually on a month by month basis. In a year like FY 81 when receipts were less than anticipated, adjustments had to be made as receipt shortfalls became apparent. This disrupted program continuity and made planning difficult. The appropriation for FY 82 addresses this problem by providing that O&C and CBWR programs be funded from the general treasury rather than remaining dependent upon monthly timber sales receipts.

Changing energy needs have drawn attention to BLM's 21 million acres of woodlands that do not produce commercial sawtimber and other manufactured products. These lands contain an estimated 200 million cords of firewood or the energy equivalent of 761 million barrels of fuel oil. In addition to energy sources on woodlands, residues from timber harvesting on commercial lands have significant energy potential. Demand has increased dramatically for fuelwood from these lands, both for personal and commercial use. In many areas, improved inventories and economic, social, technological, and environmental studies are needed, however, before program expansion can be effectively administered.

d) Budget and Performance Analysis: Forest Management (O&C)

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: Oregon State Director, District Managers, Salem, Eugene, Coos Bay, Roseburg, and Medford, Oregon

2) Authorizing Legislation

Conservation of Timber on Certain Lands in Oregon Act of 1937, P.L. 75-405, 43 U.S.C. 1181; Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1071 *et seq.* especially 1701, 1702, 1711, 1712. The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat 2957.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization	N/A	N/A	N/A
Budget Authority (\$000's).....	35,968	34,476	42,090
Appropriation (\$000's)	35,968	34,476	42,090

4) Appropriation Structure

Title: Oregon and California Grant Lands

Activity: Renewable Resource Management

Subactivity: Timber Management and Timber Development

Components: Forest Management, Western Oregon; Forest Development

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000)	35,948	43,200	32,208	42,090
Work Years	915	1,308	1,160	880

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Timber Sold (MBF).....	1,137,700	1,095,275	1,083,200	961,000
Acres Reforested	26,900	33,260	28,240	21,888
Land Treatment (acres).....	38,410	33,950	23,493	19,830
Thinning (acres).....	2,972	12,300	4,093	9,523

e) Budget and Performance Analysis: Forest Management (Management of Lands and Resources)

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors, District Managers

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1701 *et seq.* especially 1701, 1702, 1711, 1712; The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat. 2957; Material Sales Act of 1947, P.L. 80-271, 30 U.S.C. 601

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	8,992	9,382	10,121
Appropriation (\$000's).....	9,000	9,564	8,170

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Renewable Resources and Protection

Subactivity: Forest Management

Components: Public Domain Lands and Western Oregon Lands

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (000's)...	8,697	9,000	9,310	8,170
Work Years.....	292	300	246	181

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
MBF Timber Sold	90,000	90,000	99,098	90,000
Acres Reforested	1,576	1,967	2,181	2,000
Land Treatment				
(acres).....	1,206	708	2,840	450
Thinning (acres).....	2,001	1,587	1,767	363

f) Audits/Evaluations Completed

Organization:	General Accounting Office (GAO)
Title and Date:	Better Data Needed to Determine the Extent to Which Herbicides Should be Used on Forest Lands
Major Findings:	The use of herbicides has become a public controversy and in some cases the use restricted. Serious information gaps exist relating to the costs of vegetative management methods and their relative effectiveness. GAO recommends a number of actions to strengthen the vegetative management decisionmaking process.
BLM Action:	BLM generally concurred with the GAO recommendations. BLM has taken steps to increase the use of nonchemical trial projects. BLM has also developed pretreatment and posttreatment survey procedures to be used for each tract where vegetative control is proposed in order to increase information on effectiveness.

g) Audits Planned

Organization:	Office of the Inspector General
Title:	Review of Procedures for Sale and Collection of Revenues from Timber on O&C Lands

C.5. WILDLIFE

a) Program Description

The Bureau of Land Management manages extensive and diverse habitat for hundreds of wildlife species. These resources are prized for their recreational, scientific, educational, social, economic, cultural, subsistence, and esthetic values. Some 68 federally listed threatened and endangered plant and animal species have been identified on the public lands. Endangered species legislation passed in the late 1960s and 1970s added a new dimension to management of the Nation's wildlife by providing a means for conserving and managing ecosystems essential to plants and animals in danger of extinction.

Working with State wildlife agencies, BLM carries out its mission of managing fish and wildlife habitats on the public lands and the Outer Continental Shelf by ensuring that wildlife needs are considered in all land-use planning and decisionmaking. BLM has executed memoranda of understanding and nu-

merous cooperative agreements with 14 western States and one State in the East. To summarize these arrangements, the States are responsible for wildlife population management, while BLM is responsible for managing the habitat on public lands. By protecting and improving habitat on public lands, BLM helps compensate for population losses caused by declining habitat on private lands. The interdependence of habitat and population management makes the close coordination between BLM and States a critical element in BLM's wildlife management program.

The Federal Land Policy and Management Act (FLPMA) recognized wildlife as one of the principal uses of the public lands. It also further increased BLM's authority, as well as its responsibility, to manage, protect, and enhance wildlife resources. Since the passage of FLPMA in 1976, BLM has increased its effort to inventory, plan for, and implement on-the-ground management and use of terrestrial and aquatic wildlife habitat.

b) Progress Report

Special attention was focused in 1981 on several key wildlife management activities, among them:

- *Bighorn Sheep Restoration and Management.* Continued population and habitat monitoring of management efforts to reintroduce desert bighorn sheep into historic ranges in Arizona, Colorado, Nevada, New Mexico, and Utah are underway. Implementation of management programs on key Rocky Mountain bighorn sheep habitats in two other States (Idaho and Wyoming) are continuing.
- *California Desert Wildlife Management.* BLM is implementing a desert-wide management plan for 25 million acres of the California Desert which includes the management and protection of desert wildlife.
- *Tule Elk Restoration in California.* BLM continued to cooperate closely with the California Department of Fish and Game and others to successfully restore Tule Elk populations to a viable level and preventing their becoming a threatened or endangered species. In accordance with the 1976 joint resolution regarding Tule Elk, annual reports were completed and presented to Congress.
- *Inventory and Planning.* BLM inventoried almost 35 million acres of wildlife habitat, completed 63 wildlife Habitat Management Plans and revised 38, and completed over 9,200 wildlife studies and research projects.
- *Habitat Improvement.* BLM accomplished some 15,000 acres of vegetation manipulation

through seedings, plowing, burning, and other methods; 4,130 project surveys and designs; and 210 miles of protective fencing. Some 375 new water facilities were installed, and maintenance was provided for approximately 1,000 acres of vegetation, 320 water facilities, 240 miles of fence, and 250 management facilities.

- *Sikes Act Cooperation.* Increased attention was given to implementing cooperative, BLM-State wildlife agency wildlife conservation and rehabilitation programs under Sikes Act authority. Most of this effort involved wildlife habitat improvement in Habitat Management Plan (HMP) areas. BLM and 14 State agencies have prepared 180 HMPs to improve management on 26.7 million acres of habitat and 1,000 miles of stream.

BLM is a full participant in 18 interagency teams working to increase endangered species populations to the point where they can be removed from the endangered species list. In addition, BLM completed over 100 consultations with the Fish and Wildlife Service and National Marine Fisheries Service in 1981 regarding proposed actions with potential impacts on threatened or endangered species and their habitats.

c) Issues

Conflicts between the preservation of wildlife habitats and endangered species and the ever-increasing demands for commodities like water, energy, timber minerals, and red meat continue to be the major issues affecting the wildlife program.

For example, accelerating plans for coal and other types of energy development could threaten some wildlife habitats in high value energy areas. BLM attempts to minimize adverse impacts to wildlife habitat from the development of such commodities while allowing the development to proceed.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: District Managers

2) Authorizing Legislation

Federal Land Policy and Management Act, 43 U.S.C. 1701 *et seq.* especially 1701, 1702, 1711, 1712, P.L. 94-579; Taylor Grazing Act, 43 U.S.C. 315, especially 315 (h), P.L. 73-482; Endangered Species Act, 16

U.S.C. 1531 *et seq.* especially 1533, 1535-36, P.L. 93-205; Sikes Act, 16 U.S.C. 6700 P.L. 95-420; Public Rangelands Improvement Act, 43 U.S.C. 1901, P.L. 94-512; The Department of the Interior and Related Agencies Appropriation for Fiscal Year of 1981, P.L. 96-514, 94 Stat. 2957; Joint Resolution Regarding Tule Elk, 16 U.S.C. 673. Executive Order 11988 (42 FR 26951; May 25, 1977), Floodplain Management; and Executive Order 11990 (42 FR 26961; May 24, 1977), Protection and Management of Wetlands; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat 2371.

3) Funding

	1980 Actual	1981 Planned	1982 Planned
Authorization (\$000's).....	25,840	29,928	28,717
Appropriation (\$000's)	16,380	20,193	14,778

4) Appropriation Structure

Title: Management of Lands and Resources
 Activity: Renewable Resources and Protection
 Subactivity: Wildlife Management

5) Program Costs

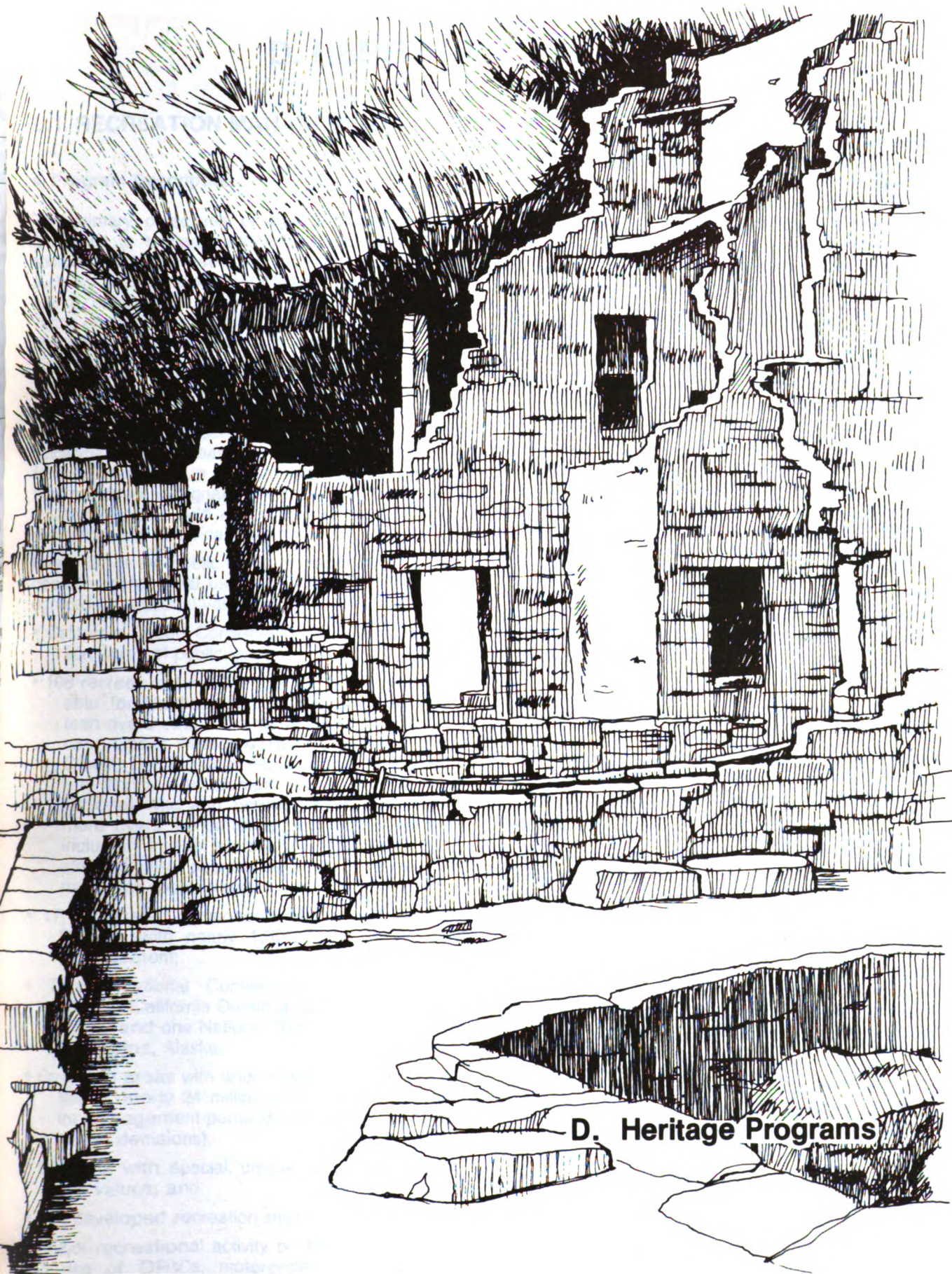
	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	16,561	19,793	18,901	14,778
Work Years	463	463	480	373

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Million of acres inventoried.....	57.9	37.4	35.3	41.7
Miles of Stream inventoried.....	3,399	2,800	2,551	1,800
New HMPs prepared and revised	72	109	101	30
Thousands of acres of wildlife habitat improved	3.5	6.3	6.3	5.0
Miles of stream habitat improved	348	400	400	320

e) Audits/Evaluations Completed

Organization: General Accounting Office (GAO)
 Title: National Direction Required for Effective Management of America's Fish and Wildlife, August 24, 1981, (CED-81-107)
 Major Findings: GAO found that Federal land managing agencies were experiencing problems managing fish and wildlife. They recommended that the Secretaries of Interior and Agriculture take action to provide national direction for more effective management of America's fish and wildlife.
 BLM Action: GAO recommendations were directed at FWS. BLM, however, felt that the utility of the report was badly undermined by preconceived opinions and rejection of facts at hand. The report does not recognize the Bureau's rapid growth, capability, and accomplishments in wildlife management.



D. Heritage Programs

D. HERITAGE PROGRAMS

D.1. RECREATION MANAGEMENT

a) Program Description

The primary objectives of BLM's recreation program are to manage and protect public land resources that are used for recreational activities, such as off-road vehicle (ORV) sport, river rafting, hiking, camping, hunting, and fishing, and to aid visitor enjoyment and safety by informing the public about the values and uses of the public lands.

Many recreational resources, such as rivers, trails, and roadless areas, often have national, as well as regional or local significance. As part of its multi-purpose planning process, BLM evaluates the significance of such areas to ensure that they are effectively managed. In some instances, this provides information for designating them as part of national systems such as wild and scenic rivers, or scenic, recreation and historical trails.

Nearly all of the public lands managed by BLM are open to recreational use. Areas with specially recognized recreational values include:

- California Desert Conservation Area with 12 million acres of public lands;
- 108 recreational rivers with over 4,000 miles suitable for floatboating or whitewater use. Thirteen rivers—the Rio Grande, North Fork American, Upper Missouri, Rogue, Beaver, Birch Creek, Delta, Fortymile, Gulkana, Unalakleet, Eel, Trinity, and Klamath—are designated as National Wild and Scenic Rivers. Twenty-two more rivers are currently being considered for inclusion in the system. An additional 1,000 streams also possess recreation values, primarily for sport fishing;
- 17 designated components of the National Trail System with nearly 1,900 miles under BLM management;
- Three National Conservation Areas—Steese, Alaska; California Desert and King Range, California; and one National Recreation Area—White Mountains, Alaska;
- Over 900 areas with wilderness characteristics totalling nearly 24 million acres (subject to interim management pending final wilderness designation decisions);
- 86 areas with special, unique, or unusual recreation values; and
- 463 developed recreation sites;

A major recreational activity on the public lands is the use of ORV's, motorcycles, minibikes, trail

bikes, snowmobiles, dune buggies, all terrain vehicles, and others. The widespread use of such vehicles began in the late 1960's, and has risen to over 8.7 million visitor days annually. BLM recognizes ORV use as a legitimate recreational activity; however, since they are frequently in conflict with other recreation activities and resource uses (range, wildlife, cultural, etc.), BLM designates public lands as open, closed, or limited to ORV use.

The Federal Land Policy and Management Act, the National Environmental Policy Act, and a number of other Statutes and Executive Orders require BLM to assess the visual impacts of proposed activities on the public lands and to adopt measures to minimize the adverse visual impacts of these activities. BLM's Visual Resource Management Program is responsible for ensuring that this aspect of the agency's multiple use management mandate is met. This includes inventorying the visual resources on public lands, developing appropriate design standards and visual impact simulation techniques, assessing the visual impacts associated with changes in the use of public lands, designing measures to minimize the adverse visual impacts of proposed actions, and developing measures to enhance particularly scenic areas.

b) Progress Report

BLM's recreation management policy was revised in FY 81. This new policy focuses recreational management on areas with the greatest recreational resources.

Preparations were made during FY 81 to develop management plans for ten designated Wild and Scenic Rivers—six in Alaska and three in California.

Four National Recreation Trails were designated by the Secretary of the Interior; Squaw Leap, California; Big Wood River, Idaho; Rogue River, Oregon; and Santa Cruz Lake and Rio Grande River, New Mexico. Applications submitted in FY 81 for three additional National Recreational Trails are in review.

Under the Land and Water Conservation Fund, 1,286 acres in four projects were acquired by BLM in FY 81 to protect special, unique, or unusual areas with high recreation values.

Over 10.7 million acres were designated in FY 81, as open, closed or limited to ORV use. As a result of a 1975 court decision in *National Wildlife Federation (NWF) v. Morton, et al.* all public lands are to receive designation by 1987.

A general recreation brochure on information applicable to off-road vehicle use was made available to the public in August, 1981. A major objective of the brochure is to develop a more responsible "land ethic" among ORV users.

Visual resource inventories are complete for approximately 80 percent of BLM lands. Remaining inventories are expected to be completed by 1990.

A variety of techniques were developed by BLM, the Forest Service, and other Federal land management agencies to simulate the visual impact of proposed changes in the use of public lands. BLM provided State and local units of government with information concerning visual resource management and coordinates its visual resource management activities with those and other units of government.

c) Issues

Recreation management issues include:

- Providing expanded visitor services to the growing numbers of recreationists.
- The ability to enforce the closed and limited ORV designations on public lands.
- Developing access to public lands in many areas with special, unique, or unusual recreation values.
- Increasing energy and mineral exploration development on public lands in the next several years, will make it increasingly important to deal with modifications to key visual resources early on in the planning and design stages of projects.

d) Budget and Performance Analysis (Recreation and Visual Resource Management)

1) Administrative Responsibility

Program Administrator: Assistant Director, Recreation and Environmental Areas (FY 82—AD, Land Resources)

Field Administrators: State Directors

2) Authorizing Legislation

Federal Land Policy and Management Act of 1976, P.L. 94-579, 43 U.S.C. 1701, *et seq.*; Taylor Grazing Act, 43 U.S.C. 315a; Endangered Species Act, 16 U.S.C. 1531 *et seq.*; Wild and Scenic Rivers Act, 16 U.S.C. 1281c; Land and Water Conservation Fund Act, 16 U.S.C. 1-6a; National Trails System Act, 16 U.S.C. 1241 *et seq.*; The Department of the Interior and Related Agencies Appropriation for Fiscal Year

1981, P.L. 96-514, 94 Stat. 2957; Recreation and Public Purposes Act, as amended, P.L. 69-386 (68 Stat. 173; 43 U.S.C. 869 *et seq.*); National Environmental Policy Act of 1969, P.L. 91-190 (83 Stat. 852, 42 U.S.C. 4321); Wilderness Act of 1964, P.L. 88-577 (78 Stat. 890, 16 U.S.C. 1131); and Vocational Rehabilitation Act, as amended, P.L. 93-112 (29 U.S.C. sec. 794); Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat. 2371.

3) Funding

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Authorization (\$000's)	9,759	11,859	12,518	17,771
Appropriation (\$000's)	7,970	7,959	7,946	5,506

4) Appropriation Structure

Title: Management of Lands & Resources and O&C Grant Lands

Activity: Renewable Resources and Protection

Subactivity: Recreation Management

Component: Recreation and Visual Resources Management

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	7,970	7,959	7,815	5,506
Work Years	225	230	224	170

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
River & Trail Studies and Plans	26	6	9	3
ORV Designations (million acres)	10.1	14.0	10.7	0.5-5
Recreation Inventory (million acres)	11.0	11.8	9.4	0
Special Recreation Permits Issued	2,985	2,700	4,935	2,000

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Visual Project Compliance	2,000	2,000	2,000	3,000

e) Audits/Evaluations Underway

Organization: General Accounting Office
 Title: Federal Role in Providing Outdoor Recreation to Americans
 Organization: General Accounting Office (GAO)
 Title: How Safe Are Federal Recreation Areas?

D.2. WILDERNESS REVIEW PROGRAM

a) Program Description

FLPMA made the preservation and management of wilderness a part of BLM's multiple use mandate for the public lands. Comprehensive inventories of the public lands are required in order to identify potentially suitable areas for the National Wilderness Preservation System. With public participation provided throughout, the wilderness review process has three major phases; inventory, study, and recommendation.

Wilderness study areas will be evaluated in detail to determine whether they are suitable for preservation as wilderness or more suitable for nonwilderness uses. The lands to be recommended to Congress as suitable will be surveyed for mineral values by the U.S. Geological Survey and the Bureau of Mines. Based on the study, the Secretary of the Interior will submit recommendations on each suitable wilderness study area to the President. The President, in turn, will send his recommendations for wilderness to Congress within two years of the Secretary's recommendation. Only Congress can designate an area as wilderness to be included in the National Wilderness Preservation System.

In addition to the overall wilderness review, FLPMA required the Secretary of Interior to make recommendations to the President by July 1, 1980, on areas formally identified prior to November 1, 1975 as natural or primitive areas. As of FY 81 these recommendations had not been made.

Lands under wilderness review receive special "interim management." FLPMA states that, during the wilderness review, lands must be managed "in a

manner so as not to impair the suitability of such areas for preservation as wilderness." The law makes exceptions for valid existing rights for mining, mineral leasing, and grazing uses. FLPMA also states that any public lands designated as wilderness by Congress will be managed under those provisions of the Wilderness Act of 1964 that apply to national forest wilderness areas.

Finally, BLM's wilderness review responsibility in Alaska was modified by the Alaska National Interest Lands Conservation Act of 1980, which exempted BLM lands in Alaska from wilderness review. An exception to this exemption was the direction for BLM to conduct a wilderness review on approximately 4.5 million acres in the Central Arctic Management Area.

b) Progress Report

The wilderness inventory in the western States (excluding Alaska) was completed in November 1980. Of the approximately 175 million acres inventoried, 149 million acres were found to lack wilderness characteristics and were released from further wilderness review. Some 24 million acres in 949 separate tracts were identified as wilderness study areas. A comprehensive list of the wilderness study areas was published in the *Federal Register* on March 3, 1981.

The review of areas previously listed as natural and primitive areas is nearing completion. On September 17, 1981, the Secretary announced that he will recommend Aravaipa Canyon Primitive Area in Arizona to the President as suitable for wilderness designation. At the fiscal year's end, recommendations on other natural and primitive areas were under administrative review in preparation for the Secretary's final recommendations to the President.

Preliminary recommendations in the approved California Desert Plan were that some 2.1 million acres were suitable for wilderness designation and 3.5 million were not suitable. Mineral surveys are now being conducted for the "suitable" areas by the Geological Survey and Bureau of Mines. Recommendations on the 3.5 million acres of "unsuitable" lands are under administrative review in preparation for the Secretary's final recommendations to the President.

While the Alaska National Interest Lands Conservation Act exempted Alaska from the mandatory wilderness review under Section 603 of FLPMA, it gave the Secretary discretionary authority to make wilderness recommendations to Congress for lands in Alaska. The Secretary on March 12, 1981, exercised his discretionary authority by directing BLM not to conduct any further wilderness inventory,

review, study, or consideration in Alaska, except where wilderness study is mandated by law. (The exception is the 4.5 million acre Central Arctic Management Area.) The Secretary indicated that further wilderness reviews were not needed in view of the exhaustive reviews that took place during the previous 8 years in connection with the national interest lands legislation.

Management of any BLM-administered lands designated by Congress as wilderness will be guided by the Wilderness Management Policy, published in final form in the *Federal Register* on September 24, 1981. BLM's wilderness studies will be guided by the forthcoming Wilderness Study Policy to be published early in FY 82. The document contains planning criteria to be used for recommendations on the suitability or nonsuitability of wilderness study areas for wilderness designation. Studies are already under way in the western States under interim guidance.

The original comprehensive policy document on this subject was the *Interim Management Policy and Guidelines for Lands Under Wilderness Review* (IMP), issued on December 12, 1979. On April 6, 1981, the IMP was changed to recognize all mineral leases issued prior to approval of FLPMA as valid existing rights, thus making them eligible for full development of the lease rights despite the wilderness study status of the lands involved. Other possible changes to the IMP are still under consideration. The Department's objective has been to permit exploration and development activities to the maximum extent permissible under the law, especially energy and mineral exploration, and to retain wilderness values as much as possible. This approach is designed to assure that the Nation will have adequate resource data on which to base informed decisions about whether an area would be designated as wilderness, and that the Nation's needs for energy, water, minerals, timber, jobs, developed and dispersed recreation, range improvements, and a strong economy and defense can be met in a timely and environmentally sound fashion—even as we meet our needs for an enduring wilderness system.

c) Issues

Some wilderness inventory results have been challenged by members of the public through formal appeals filed with the Interior Board of Land Appeals (IBLA). The appeals reflect both pro- and anti-wilderness study viewpoints. All appeals will be decided by IBLA.

The scheduling of wilderness studies is also a public concern, chiefly because the lands remain under interim management constraints during the

study period. In response to this concern, the Department is attempting to complete the studies as rapidly as possible, consistent with budget constraints. The majority of areas will have been studied by the end of FY 84, well ahead of the 1991 deadline set by FLPMA. Rapid completion of the studies will enable the "nonsuitable" lands to be expeditiously released from interim management constraints.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Recreation and Environmental Areas (FY 82—AD, Land Resources) Field Administrators: State Directors

2) Authorizing Legislation

Federal Land Policy and Management Act of 1976, P.L. 94-579 43 U.S.C. 1701, 1982; The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat. 2957; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat 2371.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	9,677	9,906	10,489
Appropriation (\$000's)	10,040	12,431	13,862

4) Appropriation Structure

Title: Management of Lands and Resources
Activity: Renewable Resources and Protection
Subactivity: Wilderness Management

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	9,989	11,737	10,889	13,862
Work Years	252	217	204	173

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Inventory (million acres)	138	36	36	4.5
EIS's (final wilderness)	1	5	5	18
Study (million acres)	5.7	-	.2	2.2
Bureau of Mines/ U.S. Geological Survey mineral reports.....	9	10	10	5

D.3 NATURAL HISTORY RESOURCE MANAGEMENT

a) Program Description

The Federal Land Policy and Management Act of 1976 (FLPMA) requires BLM to provide for scientific use of appropriate natural resources, as an integral part of multiple use management. FLPMA also requires BLM to protect the quality of ecological and other scientific resources, and to preserve certain public lands in their natural condition.

All BLM programs are required to consider scientific resource values in formulating, approving and implementing resource development and management plans. In addition, the Natural History Resource Management (NHRM) Program is being developed to enhance BLM's contributions to the Federal Committee on Ecological Reserves, State Natural Heritage Programs, the National Natural Landmarks Program, and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Man and the Biosphere Program's Biosphere Reserves System.

At the field level, NHRM is responsible for identifying natural areas on public lands having significant scientific and educational values, developing and implementing site specific measures to protect these areas (while allowing all compatible uses), and facilitating use of these areas by researchers, educators and others in the environmental science fields. BLM efforts are coordinated with other Federal agencies, State and local governments, and private institutions to identify the types of natural areas needed in a balanced national system.

In the late 1940's, BLM first contributed to the development of a national system of designated Research Natural Areas (RNA's) for maintaining natural diversity and facilitating observational scientific

research. A total of 21 RNAs have been designated covering about 50,000 acres; 100 additional sites are under review.

BLM also participates in the National Park Service's National Natural Landmarks (NNL) Program, established by the Secretary of the Interior in 1963. The purpose of the NNL Program is to identify and encourage protection of scientifically selected areas throughout the United States that are nationally significant representatives of the country's natural heritage, without discrimination as to ownership or administrative jurisdictions.

b) Progress Report

The final management plan for the California Desert Conservation Area calls for designation of four new RNAs, including one recommended for nomination to UNESCO for Biosphere Reserve designation. The CDCA Plan also designated 15 Areas of Critical Environmental Concern (ACECs) related to NHRM.

A report, completed in FY 81 and prepared under contract with the Colorado Department of Natural Resources' Natural Areas Program recommended protecting ten top-priority natural diversity sites on the public lands in Colorado.

A Memorandum of Understanding has been signed providing for cooperative relations between the Colorado Natural Areas Program and the Bureau's Natural History Program.

Under an interagency cooperative agreement with BLM, the Alaska Ecological Reserves Council (AERC) developed a list of 25 proposed Research Natural Areas. Several of the 25 areas occur on lands left in BLM administration by the Alaska National Interest Lands Conservation Act (ANILCA).

Ten critical natural areas in California, Colorado, Idaho, Nevada, Oregon, Washington and Utah were protected by the NHRM from potentially damaging activities. Specific recommendations for management of four designated natural areas in California, Idaho and Wyoming were also developed.

The Bureau manages 39 National Natural Landmarks (NNLs) covering a total of 403,305 acres. Passage of ANILCA transferred administration of the Noatak River Basin Biosphere Reserve, Alaska from BLM to the National Park Service (NPS). Six NNLs covering two million acres were also transferred to NPS or the Fish and Wildlife Service by ANILCA.

c) Issues

A major concern is the widely recognized, accelerating loss of biotic diversity in the Nation. Systematic procedures and cost effective criteria should be applied to ensure the most efficient use of BLM's resources for preserving unique and representative examples of the full range of natural diversity. The Bureau is developing these criteria and procedures through the NHRM program.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Recreation and Environmental Areas (FY 82—AD, Land Resources)

Field Administrators: State Directors

2) Authorizing Legislation

Federal Land Policy and Management Act of 1976, P.L. 94-579, 43 U.S.C. 1701, *et seq.*, Taylor Grazing Act, 43 U.S.C. 315a; Endangered Species Act, 16 U.S.C. 1531 *et seq.*; Wild and Scenic Rivers Act, 16 U.S.C. 128c; Land and Water Conservation Fund Act, 16 U.S.C. 1-6a; National Trails System Act, 16 U.S.C. 1241 *et seq.*; The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat. 2957; Recreation and Public Purposes Act, as amended, P.L. 69-386 (68 Stat. 173; 43 U.S.C. 869 *et seq.*); National Environmental Policy Act of 1969, P.L. 91-190 (83 Stat. 852, 42 U.S.C. 4321); Wilderness Act of 1964, P.L. 88-577 (78 Stat. 890, 16 U.S.C. 1131); Vocational Rehabilitation Act, as amended, P.L. 93-112 (29 U.S.C. sec. 794); and Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat 2371.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....		298	517
Appropriation (\$000's).....	180	298	517

4) Appropriation Structure

Title: Management of Lands and Resources and O&C Grant Lands

Activity: Renewable Resources and Protection

Subactivity: Natural History and Cultural Resource Management

Component: Natural History Resource Management

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	268	298	376	517
Work Years	45	6	6	5

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Site Protection (#).....	8	12	10	14
Site Designation (#)...	0	11	0	6

D.4. CULTURAL RESOURCE MANAGEMENT

a) Program Description

BLM manages the largest cultural (including archeological and historic) resource base on federal lands. Estimates of cultural properties located on BLM administered lands range from one-half million to over five million. These include a wide variety of resources ranging from southwestern prehistoric ruins to historic ghost towns; from aboriginal rock art to early wagon roads and trails; and from small scatters of ancient stone tools to abandoned military posts. They range in time from 20,000-year-old remains of special importance to the scientific community, to areas of contemporary religious and social significance.

There are over 200 BLM cultural resource properties listed on the National Register of Historic Places. Approximately 350 additional properties on public lands have either been nominated to, or determined eligible for inclusion on, the National Register. Additionally, an estimated 8,500 cultural resource properties on the public lands are suitable for nomination to the National Register. Current projections indicate that this number is increasing (by discovery) at a rate of over 500 properties per year.

The original role of BLM's cultural resource management program was to facilitate use and development of public lands by ensuring compliance with the National Environmental Policy Act (NEPA), the National Historic Preservation Act, and Executive

Order 11593. While these requirements continue to be a major workload feature, the program has matured from a reactive outlook to a management orientation. This maturity is the direct result of applying the principles of FLPMA to the way BLM views its large cultural resource responsibility. BLM seeks to protect, maintain, and enhance representative samples of the full array of cultural resources for scientific and sociocultural benefits.

b) Progress Report

Existing data inventories of known cultural resources have been conducted on about two-thirds of BLM-administered lands. To facilitate this process, BLM and the Forest Service cooperate in an effort to identify known resources that are on adjoining BLM and Forest Service lands. Approximately five million acres were sample inventoried in 1981, improving the reliability of existing data.

In FY 81, BLM identified and classified over 2,000 cultural resource sites within several categories of use: socio-cultural use, current or potential scientific use, management use, and conservation for future use. BLM has also taken steps to ensure the protection of fragile and threatened cultural sites. Protection includes patrolling, posting signs, erecting fences, and site stabilization. BLM has provided some form of protection to almost 10,000 cultural resource properties.

During FY 81, BLM produced for distribution a film designed to educate the public on the tremendous variety of cultural resources found on the public lands. *Antiquities*, which is scheduled for release to theaters in FY 82 as a short feature film, emphasizes the fragile and irreplaceable nature of cultural sites that are frequently subjected to thoughtless vandalism.

c) Issues

A key issue in the Cultural Resource Program is the conflict between preserving the public lands legacy and allocating public lands for other uses such as energy or livestock grazing. BLM depends upon its ongoing multiple use planning process to ensure that these values are carefully considered in resource use decisions.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Recreation and Environmental Areas (FY 82—AD, Land Resources)

Field Administrators: State Directors

2) Authorizing Legislation

Federal Land Policy and Management Act of 1976, P.L. 94-579, U.S.C. 1701, 1782; The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat. 2957; Antiquities Act of 1906, P.L. 59-209, 16 U.S.C. 432; National Environmental Policy Act of 1969, P.L. 91-190, 43 U.S.C. 4321, 4331-5; National Historic Preservation Act of 1966, 16 U.S.C. 470; Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa-11; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94-Stat 2371.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's)	2,479	2,091	3,848
Appropriation (\$000's)	2,630	4,153	4,450

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Renewable Resources Management

Subactivity: Recreation Management

Component: Natural History and Cultural Resource Management

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	2,612	3,894	4,132	4,450
Work Years	86	99	110	79

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Inventory (million acres)	.5	2.5	1.8	1.5
Major Protection/ Stabilization (# projects)	40	40	38	37
Permits (#)	270	280	277	300

D.5. WILD HORSE AND BURRO MANAGEMENT

a) Program Description

The protection, management and control of wild horses and burros on public lands administered by BLM were entrusted to the Secretary of the Interior¹ by the Wild Free-Roaming Horse and Burro Act of 1971. The Act has been amended by provisions contained in the Federal Land Policy and Management Act of 1976 and the Public Rangelands Improvement Act of 1978. The amendments significantly improved and strengthened BLM's management capabilities.

The 1976 amendment allowed the use of helicopters and motorized vehicles for removing excess animals. Prior to that, capture operations were slow, dangerous, and costly. The 1978 amendments were much broader in scope and focused on improving management through research and consultation ; establishing priorities for removal and disposal of excess animals; and strengthening the adoption process. For the first time, adopters of excess animals were given the opportunity to acquire ownership of the animals through transfer of title by the government.

Based on the legislative mandates, BLM's wild horse and burro program objectives are:

- 1) To ensure viable populations of healthy free-roaming wild horses and burros in equilibrium with their habitat and other resource values.
- 2) To remove excess wild horses and burros from the public lands. Where a demand for excess animals exists, they will be made available for adoption by qualified individuals. If no adoption demand exists, excess animals will be humanely destroyed.
- 3) To ensure the humane care and proper treatment of wild horses and burros.
- 4) To maintain in a good ecological condition the basic soil, water and vegetation resources that comprise the rangeland ecosystem.

b) Progress Report

In Fiscal Year 1981, BLM initiated the following management actions to enhance its program efforts:

- Formal dedication ceremonies were held in November 1980 to establish the Little Book Cliffs Wild Horse Range in Colorado. Between 80

and 100 wild horses are being protected and managed on the range. Two other ranges for horses had been established previously.

- In September 1981, an additional adoption center was opened in Valley, Nebraska (near Omaha), for placement of excess wild horses and burros with adopters in the Plains States area. More than 250 excess wild horses were placed under adoption through the center during its one month of operation in Fiscal Year 1981.
- A research contract was awarded to Utah State University in September 1981 for a study of the breeding ages and rates of wild horses and burros. The study is one of five that have been undertaken by BLM following passage of the 1978 amendments to the Wild Horse and Burro Act contained in the Public Rangelands Improvement Act (PRIA). The amendments directed BLM to work with the National Academy of Sciences (NAS) in developing research to gain additional knowledge about wild horses and burros on the public lands.

In addition to the above initiatives, BLM evaluated the cost effectiveness of the wild horse and burro program. Particular emphasis was placed on reviewing costs associated with the Adopt-A-Horse Program. The evaluation revealed that in FY 80, about 66 percent of the program's budget was used to subsidize the removal and adoption of excess animals. Removal and adoption costs averaged more than \$325 per animal. The House of Representatives' Committee on Interior and Insular Affairs requested that the adoption program be more self-supporting.

In response to the Committee, BLM announced a new adoption fee policy on June 25, 1981, that should recover about two-thirds of the costs. Starting January 2, 1982, the adoption fee for a wild horse will be \$200; for a wild burro \$75. If the animal is transported from the center where it was prepared for adoption to another facility, transportation costs will be added to the fee.

Various aspects of the program are under review to identify opportunities for streamlining procedures and reducing program costs.

c) Issues

Public concern continues to focus on three issues:

- 1) decisions on how many wild horses and burros will be managed on public lands and the number of excess animals that must be removed;
- 2) the fate of excess animals; and

¹ The Forest Service through the Secretary of Agriculture shares in the responsibility. However, 95 percent of the animals are on BLM-administered lands.

3) the cost effectiveness of the removal and adoption program.

Litigation on removal of straying wild horses and burros from private land upon the landowner's request is another issue for individuals owning unfenced property adjoining public lands. In FY 81, three additional lawsuits were filed and two prior lawsuits remained unsettled on this issue.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Recreation and Environmental Areas (FY 82—AD, Renewable Resources)

Field Administrators: State Directors

2) Authorizing Legislation

Wild Free-Roaming Horse and Burro Act, P.L. 92-195, 16 U.S.C. 1331-1340, as amended by Section 404 of the Federal Land Policy and Management Act of 1976, (P.L. 94-579, 16 U.S.C. 1338a, 90 Stat. 2775) and Section 14 of the Public Rangelands Improvement Act of 1978, (P.L. 95-514, 43 U.S.C. 1712, 90 Stat. 1808); The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 stat 2957; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 2371.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	*5,574	8,204	10,061
Appropriation (\$000's)	5,998	6,840	5,366

*Additional authorization of \$11,000,000 from P.L. 95-514, Public Rangelands Improvement Act, for range, soil, water, air, and wildlife in FY 80.

4) Appropriation Structure

Title: Management of Lands and Resources
Activity: Renewable Resource and Protection
Subactivity: Rangeland Management 2122Component:
Wild Horse and Burro Management

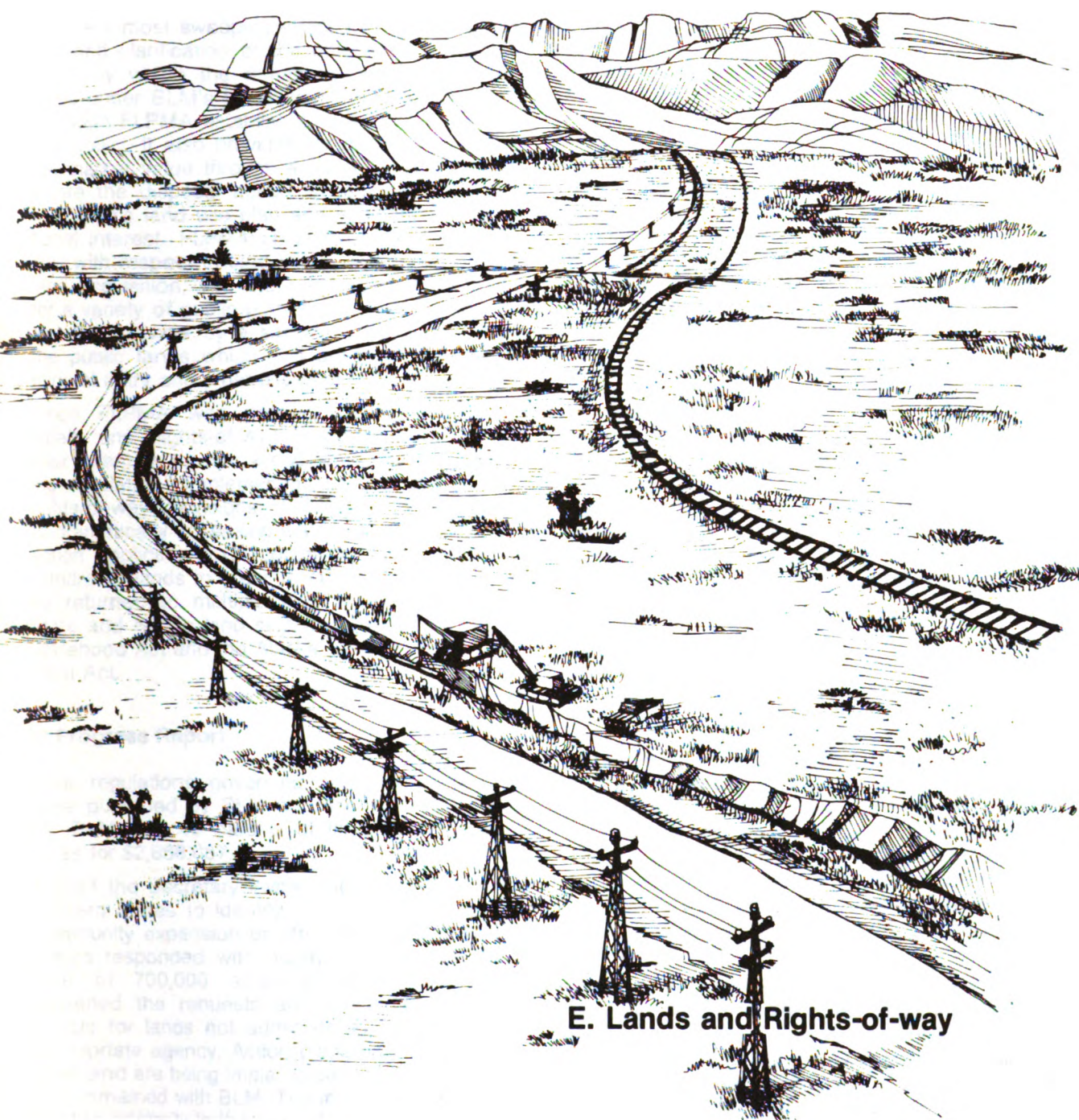
5) Program Costs

	1980 Actual	1981 Actual	1982 Planned
Dollars (000's)	4,250	7,111	5,366
Work Years	96	140	107

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Million of Acres				
Inventoried.....	20.8	21.1	22.2	-
Number of Adoption Centers	13	14	14	15
Number of Animals Adopted	7,800	9,900	10,150	9,700
Number of Herd Management Area Plans developed	14	18	9	-
Number of excess animals removed from Public lands...	9,600	10,500	*12,000	10,700
Number of compliance checks (adopters) ..	1,500	1,130	1,860	-

*Includes 600 branded and claimed domestic horses.



E. Lands and Rights-of-way

E. LANDS AND RIGHTS OF WAY

E.I. LANDS

a) Program Description

FLPMA's most sweeping effect was the consolidation and clarification of the objectives and procedures by which the remaining unreserved public lands under BLM's jurisdiction would be managed. Although FLPMA establishes retention as the general policy, it also provides for disposal of land at fair market value through a variety of mechanisms where the disposal action is generally consistent with BLM's land use plan and is clearly in the national interest. FLPMA clarified BLM's responsibilities with respect to land sales, exchanges of land, land acquisition, and the granting of rights-of-way for a variety of public purposes. It also called for a sweeping review by a specific deadline (1991) of the public lands which had been withdrawn from mineral entry and other use prior to 1976.

Since FLPMA was passed, BLM's Lands and Realty and Rights-of-Way programs have focused their attention on four areas of activity: (1) producing regulations implementing sale, exchange, and rights-of-way provisions of the act; (2) responding to dramatically increasing energy-related land transaction applications (3) completing an inventory of withdrawn lands in order to study which lands can be returned to multiple use; and (4) processing State and Native land selections under the Alaska Statehood Act and the Alaska Native Claims Settlement Act.

b) Progress Report

Final regulations governing sales of public land were published by BLM on June 10, 1980. In FY 81, BLM sold 40 parcels of land involving 5,313 acres for \$2,868,087.

In 1981 the Secretary invited the Governors of the western States to identify public lands needed for community expansion or other activities. The Governors responded with nearly 400 requests for a total of 700,000 acres of public land. BLM screened the requests and forwarded those requests for lands not administered by BLM to the appropriate agency. Action plans have been developed and are being implemented on those requests that remained with BLM. The increased demand on BLM is primarily in the area of public land sale proposals and Recreation and Public Purpose applications.

Opportunities for exchanging land to simplify ownership patterns or to serve a variety of public or pri-

vate purposes have long been hampered by the requirement that the parcels exchanged must have equal value. FLPMA provisions provided an opportunity to streamline this process and final regulations governing land exchanges were published on January 5, 1981.

An updated inventory report identified some 71.9 million acres of land to be covered by withdrawal review. The Department approved 233 Public Land Orders revoking the withdrawal of 20.3 million acres, of which 543,000 acres were opened to mining location and 16.7 million acres¹ were opened to mineral leasing. (Some parcels have overlapping withdrawals, i.e., military and power site withdrawals and revoking one withdrawal may not open the land to mineral entry or leasing.) BLM intends to complete withdrawal review on the identified lands by the 1991 deadline.

Nearly a quarter of BLM's lands and realty workforce is involved in processing Native and State selections in Alaska under the Alaska Native Claims Settlement Act and the Alaska Statehood Act. As of FY 81, BLM had conveyed 18.6 million acres of a total of some 44 million acres due the Alaska Native villages and regional corporations and 53 million acres of a total 104 million acres due the State. Current objectives call for conveyance annually of about 4.5 million acres to the Natives and 10 to 13 million acres to the State.

Activity under the Desert Land Act of 1877 is occurring principally in the States of Nevada and Idaho. At the State's request, Nevada was opened to the filing of agricultural entry applications in January 1979. Some 4,338 applications covering in excess of 1/4 million acres have been filed since that date, creating a large backlog of applications. Final action has been taken on 1,828 of the applications. Six entries have been allowed covering 1,880 acres. In addition, six land patents covering 1,238 acres were issued in Idaho under Desert Land Act provisions in FY 81 and two patents totaling 168 acres were issued under the Reclamation Homestead Act of 1902.

The Desert Land Act application situation in Idaho is similar. Roughly 1,267 applications are on file. An Environmental Statement on the impact of agricultural development of an area in south central Idaho disclosed that great increases in irrigation (and related power development) costs, and land development costs will result from opening such areas to agricultural development.

¹ Includes 16.5 million acres identified as "record clearing" only. These acres had effectively been opened to mineral leasing upon passage of the 1920 Mineral Leasing Law.

Another agricultural law, the 1894 Carey Act, provides grants to States for reclamation of arid lands for further transfer to private individuals of tracts up to 160 acres for agricultural development. As with the Desert Land Act, the limiting factor is water availability. Today, virtually all of the Carey Act entitlements to States, ranging from one million to three million acres, remain unclaimed. The Carey Act remains unused largely because States lack the capability for developing large-scale irrigation projects and water is not available.

c) Issues

BLM has also played a role in the issue of siting nuclear waste repositories on the public lands. The President's National Radioactive Waste Management Program, announced in February 1980, directed that the Federal Government pursue a comprehensive examination and characterization of alternative sites and alternative disposal methods before making final decisions about the disposal of either existing Defense nuclear wastes or existing and future commercial radioactive wastes. BLM's responsibility is to ensure that impacts of such a proposal on the resources and interests involved are carefully analyzed.

BLM has conducted an inventory of known or suspected hazardous toxic waste sites on Federal lands. Eight sites were identified and an additional 108 potential sites were located on Federal lands. To date, none of the known sites are on lands managed by BLM. None of the sites were judged by EPA to be significant enough to warrant clean-up or listing on the National Priority List.

d) Budget and Performance (Lands and Realty)

1) Administrative Responsibility

Program Administrator: Assistant Director, Lands and Rights-of-Way (FY 82—AD, Land Resources)
Field Administrators: State Directors

2) Authorizing Legislation:

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1711 *et seq.* especially 1713-1716, 1721-1722, 1732, 1744, 1761-1771; Mineral Leasing Act of 1920, P.L. 66-146, 30 U.S.C. 185; Taylor Grazing Act, P.L. 73-483, 43 U.S.C. 315; Alaska Native Claims Settlement Act, 43 U.S.C. 1616; Recreation and Public Purposes Act of 1926, 43 U.S.C. 869; Carey Act of 1894 as amended, 43 U.S.C. 687b; Wild and Scenic Rivers Act, 16 U.S.C. 1277; Act of August 18, 1894, Section 4; National Environmental Policy Act of 1969, P.L. 91-190, 43 U.S.C. 4321, 4331-4335, and 4341-4347; King Range Act of 1970, P.L. 91-476

16 U.S.C. 4601; Conservation of Timber Act of 1937 P.L. 75-405, 43 U.S.C. 1181; Mining Claim Rights Restoration Act of 1955, P.L. 86-507, 30 U.S.C. 621; Federal Aid Highway Act of 1966, 43 U.S.C. 932. Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat 2371.

3) Funding

	1980	1981	1982 Planned
Authorization (\$000's).....	37,964	41,564	45,592
Appropriation (\$000's).....	3,426	38,418	32,363

FUNDING

	1980 Actual	1981 Actual	1982 Planned
SERVICE CHARGES, DEPOSITS AND FORFEITURES ¹			
Authorization (\$000's).....	N/A	N/A	N/A
Appropriation (\$000's).....	13,750	9,600	9,600
ENERGY RELATED REALTY			
Authorization (\$000's).....	29,820	31,859	12,293
Appropriation (\$000's).....	11,035	9,713	5,514
NON-ENERGY RELATED REALTY			
Authorization (\$000's).....	4,855	5,186	23,196
Appropriation (\$000's).....	20,217	24,773	22,761
WITHDRAWAL PROCESSING AND REVIEW			
Authorization (\$000's).....	3,289	4,519	4,797
Appropriation (\$000's).....	3,174	3,931	4,088
MINING CLAIM RECORDATION			
Authorization.....	N/A	N/A	N/A

¹Appropriation Structure: Title: Service Charges, Deposits and Forfeitures. Activity: Expenses Right-of-way processing, Expenses Adopt-a-Horse, and Expenses Repair of Lands and Facilities

²Service Charges, Deposits and Forfeitures appropriation not subject to authorization requirements, data provided to show total program.

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Land and Realty Management

Subactivity: Lands and Realty Operations

Components: Energy Related Realty; Non-Energy Related Realty; Withdrawal Processing and Review; and Mining Claim Recordation

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000)	36,398	36,079	35,294	32,363
Work Years	1,231	1,298	1,131	1,129

PROGRAM COSTS

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
SERVICE CHARGES, DEPOSITS, AND FORFEITURES				
Dollars (\$000)	6,338	9,600	8,296	9,600
Work Years	120	182	176	161
ENERGY RELATED REALTY				
Dollars (\$000)	6,876	10,981	9,719	5,514
Work Years	203	220	288	206
NON-ENERGY RELATED REALTY				
Dollars (\$000's)	23,006	21,125	22,077	22,761
Work Years	717	972	742	787
WITHDRAWAL PROCESSING AND REVIEW				
Dollars (\$000's)	1,079	3,973	3,498	4,088
Work Years	41	106	101	136
MINING CLAIM RECORDING				
Dollars (\$000's)	3,461	N/A	N/A	N/A
Work Years	192	N/A	N/A	N/A

6) Performance

ENERGEY RELATED REALTY

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Environmental Analyses	1,391	2,002	2,380	2,055
Environmental Statements	2	-	-	-
Field Examinations	4,830	4,220	4,789	4,083
Use Authorizations	1,834	2,378	2,758	2,456
Compliances	2,162	3,165	3,567	2,111

NON-ENERGY RELATED REALTY

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Field Examinations	8,797	3,243	4,921	2,979
Title Transfers	2,422	1,669	1,648	1,542
Use Authorizations	7,646	1,645	8,917	1,661
Compliances	3,474	1,719	2,322	1,483
Inventory (Acres)	9,012,203	3,152,836	12,537,995	1,060,200

WITHDRAWAL PROCESSING AND REVIEW

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Processing withdrawal applications/ revocations	-	429	706	301
Withdrawal review	-	593	597	745
Classifications ...	-	-	400	200
Withdrawals				
Environmental analyses	-	108	134	201
Special Designations	-	429	706	768

MINING CLAIM RECORDATION

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Filings (Cases)	486,300	292,259	638,636	344,600

e) Audits/Evaluations Underway

Organization:	General Accounting Office (GAO)
Title:	Review to Determine Fair Market Value of All Federal Lands and Which Could be Sold
Title:	Review of Federal Agencies' Capability to Meet Their New Land Management Responsibilities in Alaska

E.2. RIGHTS-OF-WAY

a) Program Description

See E.1 Lands and Realty.

b) Progress Report (Rights-of-Way)

Final R/W regulations published on July 1, 1980, were being revised in 1981 to simplify the granting process. The authority to issue right-of-way grants continued to be transferred to BLM District Offices. This change reduced right-of-way application processing time substantially without detracting from resource management and environmental needs.

BLM and the Forest Service (FS) are working jointly under an Interagency Agreement to identify transportation and utility corridors. An *ad hoc* users

group is identifying right-of-way and corridor needs. When the joint corridor work is completed, through the respective land use planning systems, there will be a matrix of routes on public and National Forest lands where right-of-way applications will be viewed with favor, and questions on alternative routing will not need to be considered in the granting process. To supplement BLM's joint work with the FS on corridors, BLM and the FS entered into an agreement in 1981 with the Western Interstate Energy Board. Under this agreement, the Board will advise BLM on some of the tough problems when a corridor will traverse both federally and non-federally owned lands.

A task force completed in April 1981, a review of BLM's Energy Facility Permitting Process and recommended ways the process could be simplified and/or shortened. The recommendations are being implemented.

A substantial portion of the Right-of-Way Program in recent years has been devoted to processing siting and rights-of-way proposals associated with the dramatic increase in domestic energy development and facility construction in the West, the vast majority of it on public land managed by BLM. In FY 81, BLM was processing applications for right-of-way grants and either conducting or participating in environmental analyses of:

- 10 major pipeline projects;
- 9 major powerplant siting proposals;
- 5 major transmission line proposals;
- 6 major oil shale processing proposals;
- 3 major tar sands processing proposals; as well as
- a variety of major right-of-way projects such as the MX missile, radar sites, oil and gas field development, water related projects (dams, reservoirs, and hydroelectric), wind energy, and others.

BLM has responded to concerns expressed by the energy industry and the public to simplify procedures. Efforts to streamline the right-of-way granting process include: initiating regulatory reform, preparing right-of-way manuals, completing an energy facility siting study, developing a consolidated application form for use in Alaska, and standardizing right-of-way granting forms and national right-of-way grant stipulations.

c) Issues

The protection of cultural resources on private lands crossed by a right-of-way was an issue considered in FY 81. The existing BLM policy is to in-

clude stipulations in right-of-way grants protecting cultural resources on private lands when the State Historic Preservation Officer feels the resource is important. This policy is now being reviewed to determine BLM's authority to protect cultural resources on non-federal lands.

d) Budget

See E.1. Lands and Realty.

E.3. EASEMENT AND MISCELLANEOUS LAND ACQUISITION

a) Program Description

BLM's authority to acquire land and interests in land prior to passage of FLPMA was defined narrowly. The first BLM acquisition authority was only for easements across private land, an important factor for forest management in Western Oregon where land ownership is intermingled in a checkerboard fashion. Special legislation calling for intensified management at such areas as the King Range in California, Wild and Scenic Rivers, or along the Pacific Crest Trail brought with it the authority to acquire lands or interest in lands. In 1976, FLPMA gave BLM general acquisition authority but strictly limited condemnation authority to situations where as narrow corridors as possible are needed to give access to public lands which would otherwise be blocked. FLPMA also authorized the use of money from the Land and Water Conservation Fund (L&WCF) to acquire lands that are primarily valuable for outdoor recreation.

In 1971, the Alaska Native Claims Settlement Act (ANCSA) authorized the reservation of public easements on lands to be conveyed to Alaska Native corporations. As a result, several thousand easements across Native lands to provide access to public lands and resources were reserved to the United States government throughout Alaska. These easements are periodically reviewed, as required by ANCSA, to determine if the easement is located where it should be as specified in the conveyance document and whether the easement is being used. If the easement is not being used the rights of access are terminated.

It is BLM's policy to use its acquisition authority sparingly. It is not BLM's policy to add significant new acreage to the public domain, but rather to resolve irregularities in ownership or to acquire legal rights which contribute in some significant manner to management objectives.

b) Progress Report

In fiscal year 1981 BLM expended \$1.7 million for purchase of access road easements to support resource programs and provide public access to public lands. Land and Water Conservation (L&WC) funds in the amount of \$2.5 million were expended to acquire fee title to scenic easements on 29 tracts encompassing 3,162 acres. Major projects included within L&WCF acquisitions in 1981 were: the Rogue, Upper Missouri, and Rio Grande Wild and Scenic Rivers; the King Range National Conservation area, and the Pacific Crest Trail.

c) Issues

The management, protection, development, or use of the public lands is often dependent upon legal access across non-Federal lands. Without this access, the public lands and their resources are unavailable to the public. Pressures are applied daily by recreationists, hunters, and developers to provide adequate access.

Two factors contributing to the lack of adequate access include:

- Roads commonly used by the general public are suddenly closed by a landowner.
- Local governments may unilaterally vacate a public road across private property leading to public lands.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Lands and Rights-of-Way (FY 82—AD, Land Resources)

Field Administrators: District Managers

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1701 *et seq.* especially 1715 and 1748; Taylor Grazing Act, P.L. 73-482, 43 U.S.C. 315; Oregon and California Sustained Yield Act, P.L. 75-

405, 43 U.S.C. 1181 a-f; National Trails System Act, P.L. 90-543, 16 U.S.C. 1241-49 especially 1245(a); Wild and Scenic Rivers Act, P.L. 90-542, 16 U.S.C. 1271 *et seq.* especially 1277; King Range National Conservation Area, P.L. 91-476; 16 U.S.C. 4601, especially 1-4; The Department of the Interior and Related Agencies Appropriation for fiscal year 1981, P.L. 96-514, 94 Stat. 2957; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat. 2371.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	1,750	1,882	1,882
Appropriation (\$000's)	2,235	1,802	1,733

4) Appropriation Structure

Title: Acquisition, Construction, and Maintenance

Activity: Acquisitions

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	2,319	1,802	1,617	1,733
Work Years	50	47	56	46

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Examinations.....	89	106	115	114
Title Transfers.....	79	200	157	250
Project Survey & Design.....	169	120	132	136



F. California Desert Plan

F. CALIFORNIA DESERT CONSERVATION AREA

a) Program Description

The CDCA, established by FLPMA, covers some 25 million acres, or about one-fourth of the land surface of California. About half of this area is public land administered by the California Desert District of BLM. The remainder is divided among other Federal agencies (National Park Service, Forest Service, Defense Department), the State of California, and private ownership.

The California desert contains a variety of natural, cultural, and economic resources including: minerals, wildlife habitat, room for expansion of desert towns, rights-of-way corridors, and numerous recreation uses.

FLPMA directed the Secretary to prepare and implement a comprehensive, long-range plan for the management, use, development, and protection of the public lands of the desert. The plan was approved shortly after its completion in December 1980 and the implementation of the plan was approved in April 1981.

A program of law enforcement was also authorized and search-and-rescue was made an assigned mission of BLM where no other emergency forces are available.

FLPMA also provided for a California Desert Conservation Area Advisory Committee to advise BLM on development and implementation of the plan. The committee was appointed in January 1977 and served as a focal point for the major public involvement program. This advisory committee will be replaced by the Advisory Counsel for the California Desert District.

b) Progress Report

The California Desert Management Plan designates the land into four use classes Controlled, Limited, Moderate, and Intensive. Management guidelines for each of these classes have been developed to respond to broad regional concerns. Site specific areas are treated separately as "Areas of Critical Environmental Concern" (ACECs) or Special Areas.

The five Resource Areas of the California Desert District are preparing management plans for the various activities that take place on the public lands. In FY 81 the following actions were taken to implement the management plans:

- Nine allotment management plans were prepared.
- Three allotment management plans were contracted.
- Six draft activity plans for ACECs were completed.
- Habitat Management Plans were completed for big horn sheep in the Santa Rosa Mountains.
- Recreation-related permits, mostly for competitive off-road vehicle events, were issued for more than 70 events.
- A management statement for the East Mojave National Scenic Area was completed.
- Plans of operation for mining were processed, as were offers to lease oil and gas and geothermal energy.

c) Issues

Vehicle access to the Desert is an important issue. The California Desert District is working on route approval as implementation of the Plan proceeds. Public involvement will play an important role and 13,000 mailouts have been sent to request input on the access issue.



G. Financial Management

G. FINANCIAL MANAGEMENT

G.I. RECEIPTS AND ALLOCATIONS

The development and use of public land resources managed by BLM generate receipts from a variety of sources. Bonus bids and royalties from the leasing of Outer Continental Shelf (OCS) resources account for the vast majority of receipts, roughly 92 percent of total receipts in fiscal year 1981, for example. Continuing public interest in mineral exploration on public lands is strongly reflected in the 1980, 1981 and projected 1982 receipts from BLM programs—a trend started in 1973 when international energy supplies became increasingly unstable and costly.

The Outer Continental Shelf Lands Act, as amended, requires that all Outer Continental Shelf (OCS) lease revenues attributable to oil and gas pools and fields underlying both the OCS and submerged lands subject to the jurisdiction of a State, shall be deposited in a separate account of the Treasury. This account is described in Section G.3 Outer Continental Shelf Investments Program.

Onshore receipts are generated from timber sales, grazing fees, oil and gas, coal and other leasable minerals, hardrock minerals development, and various user fees. Again, the minerals dominate. Onshore mineral receipts amounted to \$822 million in 1981, and are expected to go to about \$1.1 billion in fiscal year 1982.

Exclusive of the Offshore OCS Leasing Program, receipts from the development and use of the resources of public lands were allotted in FY 81 under a variety of public-land-payment programs as follows:

- FLPMA increased the State's share of public land payments by amending the Mineral Leasing Act to raise the share of mineral leasing receipts returned to the States from 37.5 percent to 50 percent. FLPMA also stated that these funds could be used for any purpose a State legislature directs, with priority to be given to the State subdivisions that are socially or economically impacted by mineral development.
- In 1976, Congress passed the Payments in Lieu of Taxes (PILT) Act to authorize payments to local units of government containing Federally owned tax-exempt lands. These payments supplement revenue sharing funds and are made directly to local governments. BLM is responsible for processing PILT payments for Federal entitlement lands administered by BLM and six other Federal agencies. In 1981 processed payments totaling about \$104 million. Table 4 lists BLM receipts for 1980, 1981, and projections for 1982.

G.2. PAYMENTS IN LIEU OF TAXES

a) Program Description

In 1976, Congress passed the Payments in Lieu of Taxes (PILT) Act to authorize annual payments to local units of government containing certain Federally owned, tax-exempt "entitlement" lands. Serving as a supplement to revenue-sharing funds, PILT payments are made directly to local governments and may be used for any governmental purpose.

BLM processes PILT payments for Federal entitlement lands administered by BLM and six other Federal agencies: National Park Service, the Forest Service, the U.S. Corps of Engineers, the Bureau of Reclamation, the Department of Army, and the Fish and Wildlife Service. The act specifically prohibits payments for lands (but not certain donated lands) that were tax exempt before being acquired from State or local governments.

The PILT computation process requires each State to submit data on the amount of revenue sharing funds received by units of local governments in the preceding fiscal year. This amount is then deducted from the PILT payments for the current year. In fiscal year 1980 \$158.8 million was deducted from PILT payments as a result of the revenue sharing provision. In FY 81 these deductions increased to \$182.7 million.

b) Progress Report

In FY 81, BLM made full payments totalling \$104 million to 1,694 local governments. In the previous two years the payments had been prorated due to lack of funds. Since PILT payments were started on September 30, 1977 over \$513 million has been paid to local governments in each of the 50 States.

c) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Administration

Field Administrator: None

2) Authorizing Legislation

Payments in Lieu of Taxes Act of 1976, P.L. 94-565, 31 U.S.C. 1601, as amended by P.L. 95-250 and P.L. 95-469.

TABLE 4—BUREAU OF LAND MANAGEMENT RECEIPTS

	FY 1980	FY 1981	FY 1982 Estimated
STATEMENT OF PUBLIC LANDS RECEIPTS			
Mineral Leases and Permits	\$ 682,129,626	\$ 821,989,507	\$1,283,800,000
Sales of Public Lands & Materials	7,756,262	4,828,873	7,000,000
Sales of Public Timber.....	14,089,027	15,724,745	15,700,000
Fees and Commissions	28,593,626	43,830,722	130,900,000
O&C Lands (Timber Sales)	195,214,025	193,911,483	155,000,000
Coos Bay Wagon Road Lands (Timber Sales).....	6,806,467	6,107,957	8,250,000
Grazing Fees	24,601,500	24,884,317	22,298,000
Rights-of-Way	899,568	587,600	831,000
Miscellaneous Leases and Permits.....	6,380,157	1,259,314	1,300,000
Nonoperating Revenue ¹	9,523,282	12,108,892	13,000,000
Other ²	443,596	359,182	915,000
Rent of Land.....	1,978,105	15,850,153	1,716,000
Total	\$978,415,241	\$1,141,442,745	\$1,640,710,000
ALLOCATIONS OF PUBLIC LANDS RECEIPTS			
States and Counties	\$419,072,759	482,745,815	579,063,000
Reclamation Fund.....	267,515,575	310,205,053	441,800,000
Indian Trust Fund.....	235,545	28,179	40,000
General Fund.....	291,651,362	348,463,698	619,807,000
Total	\$978,415,241	\$1,141,442,745	\$1,640,710,000
STATEMENT OF OCS RECEIPTS			
Outer Continental Shelf.....	\$5,353,638,047	\$11,988,516,004	\$11,346,000,000
ALLOCATIONS OF OCS RECEIPTS			
General Fund.....	\$4,100,870,747	\$10,137,982,282	\$11,000,000,000
Special Treasury Account	1,252,767,200	1,850,533,722	346,000,000
Total	5,353,638,047	\$11,988,516,004	\$11,346,000,000

¹ Incidental receipts from fines, taxes, etc., which are unrelated to routine public land administration.

² Receipts from miscellaneous materials sales under the Materials Disposal Act.

3) Funding

	1980 ^a Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	108,000	111,000	114,000
Appropriation (\$000's)	108,000	108,000	95,520

^a5,000 deferred until FY 81

4) Appropriation Structure

Title: Payments in Lieu of Taxes

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	*103,425	108,000	103,400	95,520
Work Years	3	5	3	2

*Includes 1,640,502 paid from FY 78 and 79 funds

6) Performance

N/A

G.3. OUTER CONTINENTAL SHELF INVESTMENTS PROGRAM

a) Program Description

The Outer Continental Shelf Lands Act, as amended, authorizes the Secretary to invest certain revenues received from leasing lands on the Outer Continental Shelf (OCS) in interest-bearing accounts. These revenues are deposited into a special Treasury account until a final determination is made as to the rights to these revenues. Interest is earned on these funds through investments in U.S. Treasury Securities. There are three situations when revenues are deposited into the special Treasury account (the monies are then invested in U.S. Treasury Bills):

1. Revenues attributable to those portions of a tract with pools underlying both OCS and submerged lands subject to State jurisdiction are deposited in the special account until the Secretary

and the State Governor agree on the distribution of the revenues. If an agreement cannot be reached, these funds are to be distributed in accordance with a determination to be made by a U.S. District Court.

2. Cash bids received on tracts to be leased are deposited in the special account when there is a delay in the determination to accept or reject the bids.

3. Where there is a controversy between the U.S. and a State over the ownership or jurisdiction of lands being leased, the affected revenues are deposited in the special Treasury account until an agreement is reached.

b) Progress Report

Cash receipts totaling \$1.9 billion were deposited in the special Treasury account in FY 81. This includes revenues totaling \$1.7 billion for tracts leased in the Gulf of Mexico and off the coast of Southern California. In addition, revenues totaling \$84 million received from bidders of tracts in the Beaufort Sea were also placed in the special account pursuant to an agreement between the U.S. Government and the State of Alaska concerning certain disputed leases.

As of revenues placed in the special account and \$580 million represents interest earned on investments. A total of \$418 million in interest is attributable to fiscal year 1981.



H. Management Support

H. MANAGEMENT SUPPORT

H.1. CONSTRUCTION AND MAINTENANCE—BUILDING, RECREATION, AND TRANSPORTATION

a) Program Description

The Construction and Maintenance Programs construct and maintain facilities needed to provide services for visitors to the public lands. These programs also provide support to resource management of the public lands including all phases of new construction—planning, environmental analysis, survey, design, and contracting operations; and provide timely maintenance for BLM owned building, recreation, and transportation facilities. These broad responsibilities are relatively new.

When BLM was established in 1946, its physical facilities were inherited from its parent agencies, the General Land Office and the Grazing Service. Building space was provided by the General Services Administration. A primitive road system on the public lands reflected the miscellaneous access needs of ranchers, mining companies, railroads, and county and State governments. In addition, many miles of somewhat less primitive road built by the Civilian Conservation Corps in the 1930's were inherited. Recreation facilities were nonexistent or at best, very primitive.

As its role in managing the public lands grew, BLM obtained facilities from other agencies, such as the Civilian Conservation Corps and the various states and counties. Investment in construction on the lands remained extremely modest, however, because BLM was still considered an interim custodian of the land pending ultimate disposition. New road construction was limited to those necessary for the development of timber resources in Oregon, California, Idaho, Colorado, Montana, and Wyoming. Building construction until 1963 was limited to firefighting facilities in Alaska.

In the 1960's BLM's custodial role gave way to the concept of retention. The new policy was stated clearly in the Classification and Multiple Use Act of 1964 and in the legislation creating the Public Land Law Review Commission. During this same time, public use of BLM lands rocketed, especially recreational use. The existing primitive road system was inadequate for the heavy influx of a new kind of traffic—automobiles and recreational vehicles. In 1964, contract authority under the Public Lands Development Roads and Trails Appropriation empowered BLM to construct "roads or trails which the Secretary of the Interior determines are of primary

importance for the development, protection, administration, and utilization of public lands and resources under his control." In 1978 this appropriation was dropped and replaced by a transportation construction portion in BLM's regular Construction and Maintenance Appropriation.

Recreation facilities, including sanitary facilities, picnic tables, fire rings, well-water supplies, and visitor service facilities were also constructed to accommodate some of the roughly 70 million annual visitors who camp, hike, picnic, hunt, fish, raft, rock-hound, or drive recreational vehicles on the public lands.

By 1967, BLM had begun to construct its own office buildings, warehouses, shops, and other facilities tailored to BLM's resource management responsibilities. Although BLM continues to obtain most of its building space from the General Services Administration, rapid growth and the shortage of facilities available for lease especially in remote locations, often force BLM to construct its own. Specialized structures such as telecommunication buildings at remote locations, well pumping buildings, seed storage bins, greenhouses, and warehouses are also frequently built to order.

b) Progress Report

In fiscal year 1981, BLM completed construction of buildings on seven administrative sites. Construction of seven other buildings was started but not completed in FY 81.

Maintenance was provided to 567 structures, including office buildings, warehouses, shops, storage buildings, fire stations, lookouts, and related facilities such as parking areas and warehouses. Special emphasis will continue to be placed on corrective maintenance and retrofit for energy conservation. The maintenance program has emphasized the reduction of fuel consumption through such measures as the installation of storm windows and doors and the addition of insulation.

During FY 81 BLM began construction of two bridges, one related to timber sales. BLM performed maintenance on approximately 9,100 miles of road, 227 miles of trail, and 14 bridges, emphasizing those that receive the greatest use and have the highest erosion potential if maintenance is deferred.

Transportation construction, with the exception of timber access roads, has been at a low level pending completion of resource management plans and wilderness reviews. It is not anticipated that the

completion of these plans will change the transportation construction and maintenance programs.

During FY 81, construction was begun or completed on four recreation sites. BLM has identified other planned projects throughout the West and in Alaska, including visitor centers, sanitary facilities, cave protection work, campsites, and information stations. Recreation facility maintenance in FY 81 involved minimal work at approximately 1,700 undeveloped sites (sites without water) and at 436 developed campsites containing varying numbers of individual sites. In addition, more than 400 hazards were removed or mitigated such as filling abandoned mine shafts, removing dead trees, or barricading cliffs to improve visitor safety.

c) Issues

As BLM's program responsibilities expand to keep pace with public interest in and use of its lands, construction and maintenance become increasingly pressing concerns. Lack of office and storage space are often recurring problems. Because there is no provision for acquiring or constructing facilities on the basis of projected rather than existing need, the availability of facilities may lag behind the need for them and "temporary" structures may be used (mobile home type units) to offset space shortages. In spite of these problems, BLM increasingly emphasizes its maintenance responsibilities as the intensity of public use of its facilities increases.

Increasing use of BLM roads and trails results in erosion problems because few BLM roads were designed for present use levels or for passenger vehicles. Poor drainage control can result in a soil loss of as much as 100 tons per mile of poorly surfaced road each year and many of these roads can only be used seasonally. Of the 44,000 miles of existing road, 32,000 are primitive and their primitive character can be hazardous to motorists accustomed to the highly developed roads in urban areas.

BLM constructs and maintains its transportation system to support its own resource management objectives, and does not construct public roads. However, as population pressures increase, so do demands for BLM to construct and maintain its roads to State and county road standards, or in other terms to construct public roads. To meet such demands the only option is to transfer some roads out of BLM authority to local public road authority, an action usually not favored by local authorities because of the responsibility and cost of improving and maintaining the roads.

Considering the need for recreation facilities (in 1978 it was estimated that existing facilities accommodated less than 15 percent of demand) BLM constructs and maintains a very modest number of

functional facilities for use by the general public. Particular problems relating to high visitor use occur in the California Desert, along the Colorado River between California and Arizona, in caves in New Mexico, in the El Malpais areas of New Mexico, in the Little Sahara sand dunes in Utah, and on the upper Missouri River in Montana. Current plans are to pace new construction with the completion of resource management plans to ensure that BLM is fully prepared to deal with increased use that follows increases in visitor service facilities.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: District Managers

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1731 *et seq.*; the Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat. 2957; Timber Protection Act of 1922, P.L. 67-315.

3) FUNDING

	1980	1981	1982 Planned
BUILDING CONSTRUCTION			
Authorization (\$000's)	7,117	9,082	7,282
Appropriation (\$000's)	2,438	1,461	544
RECREATION CONSTRUCTION			
Authorization (\$000's)	807	1,129	3,929
Appropriation (\$000's)	1,321	684	607
TRANSPORTATION CONSTRUCTION			
Authorization (\$000's)	4,261	4,660	5,160
Appropriation (\$000's)	2,075	2,041	679
BUILDING MAINTENANCE			
Authorization (\$000's)	2,448	2,583	2,783
Appropriation (\$000's)	2,596	2,631	2,782
RECREATION FACILITIES MAINTENANCE			
Authorization (\$000's)	3,403	3,661	3,861
Appropriation (\$000's)	3,341	3,599	3,298
TRANSPORTATION MAINTENANCE			
Authorization (\$000's)	2,557	2,796	2,896
Appropriation (\$000's)	2,337	2,550	2,568

4) PROGRAM COSTS

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
BUILDING				
CONSTRUCTION				
Dollars (\$000's).....	4,615	1,461	411	544
Work Years.....	25	18	20	5
RECREATION				
CONSTRUCTION				
Dollars (\$000's).....	916	684	630	607
Work Years.....	17	9	12	4
TRANSPORTATION				
CONSTRUCTION				
Dollars (\$000's).....	3,368	2,041	2,133	679
Work Years.....	51	43	48	6
BUILDING				
MAINTENANCE				
Dollars (\$000's).....	3,046	2,631	2,516	2,782
Work Years.....	72	45	56	57
RECREATION				
FACILITIES				
MAINTENANCE				
Dollars (\$000's).....	3,371	3,599	3,664	3,298
Work Years.....	94	80	93	71
TRANSPORTATION				
MAINTENANCE				
Dollars (\$000's).....	2,392	2,550	2,465	2,568
Work Years.....	52	43	52	48

5) PERFORMANCE

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
BUILDING				
CONSTRUCTION				
Project Survey & Design (number).....	9	12	24	2
Construction (number).....	3	10	10	11
RECREATION				
CONSTRUCTION				
Project Survey & Design (number).....	35	32	5	1
Construction (number).....	15	16	8	3
TRANSPORTATION				
CONSTRUCTION				
Project Survey & Design				
Bridges (number)	-	-	16	10
Roads (miles)	-	-	84	101
Construction				
Bridges (number)	-	-	1	2
Roads (miles)	-	-	48	3
BUILDING				
MAINTENANCE				
Buildings (number).....	567	650	579	579
RECREATION				
FACILITIES				
MAINTENANCE				
Hazard Reduction (Number).....	515	684	200	180
Maintenance, Bldg. Recreation (Number)	4,661	3,620	2,136	1,436

5) PERFORMANCE—Continued

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
TRANSPORTATION				
MAINTENANCE				
Maintenance, Road (miles).....	9,766	8,179	9,085	8,750
Inventory (miles).....	1,621	1,763	1,763	1,200

H.2. GENERAL ADMINISTRATION**a) Program Description and Progress Report**

General Administration includes executive direction (which in practice means funding BLM's major line officers) as well as the following functioning in Washington and at the Denver Service Center: personnel management, employee and visitor safety, administrative services, and management research.

1) Personnel Management

A personnel management program which is both responsive to BLM management and one which maintains the integrity of the Civil Service Reform Act is a continuing priority of the Division of Personnel and Training. To streamline operations and improve the effectiveness and efficiency of personnel management during FY 81, the following actions were taken:

- Implemented the Merit Pay system which requires salary increases of certain employees grade GM-13 through GM-15 be based on merit, not longevity.
- Implemented a training program for Area Managers designed to improve managerial effectiveness and provide a pool for selection of the middle and top management team.
- Delegated Personnel management authority to more State Offices.

2) Employee and Visitor Safety

The Bureau Safety program encompasses both employee occupational safety and health and safety of the visiting public. Prevention of accidental loss is vital to the accomplishment of the Bureau's mission and to our public service commitment. Preliminary analysis of the accidental loss data for FY 81 indicates a continuing downward trend. Field Offices, in FY 81, implemented comprehensive occupational

hygiene surveys to identify potentially hazardous environments and to establish control measures to protect employees and the visiting public. A "job hazard analysis" was implemented for each activity or work operation to ensure that places and conditions of employment are free from recognized hazards. During this period continuing efforts were made to identify and close hazardous mine openings and to maintain safe recreation facilities for the public.

3) Administrative Services

Procurement, property and space management, energy conservation, printing, and directives management fall under the responsibility of the Division of Administrative Services. During FY 81 BLM spent \$115.7 million for goods and services of which \$40.6 million was expended by the Washington Office mainly for the OCS Environmental Studies Program. Contracting for the Western States and Alaska is consolidated in the Denver Service Center which awarded contracts for construction, studies, supplies, and services totaling \$32.1 million. Field offices expended an additional \$43 million, mostly through the small purchase transactions.

In BLM's support of various socioeconomic programs, BLM has established aggressive goals and made high accomplishments. Fiscal year 1981 goals and achievements include:

FY 81 Goals and Achievements

	Goal	Actual Contract Awards ¹
Minority Business Enterprises.....	\$2.3	\$2.2
Labor Surplus Area Setasides.....	5.4	5.5
Small Businesses.....	30.4	47.2
Women Business Enterprises.....	.5	1.0

¹ Includes small purchases

The support of public land management efforts requires 4.8 million square feet of improved real property. Of this, BLM has direct jurisdiction over 1.5 million square feet of space. BLM is striving for more efficient use of space by employing "open space" rather than partitioned space arrangements wherever possible and is continuing to review this new practice which has enabled BLM to improve space allocated per employee, provide flexibility, and at the same time give consideration to the convenience of the public.

Energy usage was improved in buildings by adjusting temperature, installing storm doors and windows, and adding insulation. Technical surveys

were completed for 21 BLM-owned buildings in FY 81.

Efforts to reduce automotive fuel consumption in BLM's fleet of 3,384 GSA-assigned and 1,662 BLM-owned vehicles continues. During FY 81, BLM employees drove 44 million miles, an increase of 3 million miles (7.3 percent) over FY 80. BLM-owned vehicles now consist of 43.6 percent compacts and fleet miles per gallon has increased from 16.1 mpg in FY 80 to 18.7 in FY 81, or 16 percent.

A Printing and Publications program was implemented and a Printing and Graphics Art Manual written in FY 81. Electronic photocomposition continues to be used for printing large documents such as Environmental Impact Statements. This saved BLM an estimated \$45,000 in printing and related costs in FY 81. Approximately 15 documents were published by this method during FY 81. To further reduce publishing costs, contracts and manual sections will be photocomposed in FY 82.

In FY 81, a term contract for printing EISs was established through the Denver Government Printing Office. This consolidated a large share of BLM's printing needs and eliminated individual printing procurements resulting in a saving of approximately \$2,000 per EIS over previous methods. BLM plans to expand this contract Bureauwide during FY 82 to achieve additional savings.

An indepth word processing study was completed by the National Archives and Records Service (NARS) for every BLM State and District Office. Based on the NARS recommendations and the development of a competitive word processing equipment contract, BLM anticipates a savings of approximately \$500,000 per year on word processing costs Bureauwide beginning in FY 83.

4) Management Research

The Division of Management Research analyzes and directs the implementation of organization and management systems. Efforts have been made to develop organizational structures and management systems which provide for responsive decisionmaking at the field level. The Division reviewed field office organizations and analyzed the way authority is delegated. The results of these studies have placed authority and personnel management at the most effective organizational levels in the field. In addition to emphasis on the field office organization, the Division of Management Research has devoted attention to a reorganization and realignment of functions in the Headquarters Office and an analysis of the management, direction, and related personnel concerns of the BLM's Energy and Minerals Programs.

b) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Administration

Field Administrators: Delegations vary between different functions and within the same function so that a general identification of field level administrators is not possible.

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1701 *et seq.* especially 1731, 1734, 1735, 1736, 1737; Title 5 U.S.C., P.L. 89-554 Government Organization and Employees especially Part III as amended by Civil Services Reform Act P.L. 95-454; Federal Property and Administrative Services Act of 1949 P.L. 81-288, 40 U.S.C. 471 *et seq.*; The Department of the Interior and Related Agencies Appropriation for 1981, P.L. 96-514, 94 Stat. 2957.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	5,257	6,742	8,623
Appropriation (\$000's)	4,253	5 664	76,647

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: General Administration

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	8,709	5,383	8,580	76,647
Work Years	334	228	343	1,279

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Process payroll documents (000's) of actions to process T/A reports, W-2's and the various entries which are part of payroll such as deductions bonds, etc.....	1,250	1,250	2,000	2,000
Process billing & payments documents (000's).....	15	100	175	100
Process personnel actions (#).....	28,124	32,225	*55,000	45,000
Award negotiated contracts (#)	598	600	220	216
Award formally advertised contracts.....	346	360	411	404

*The processing of at least 12,000 personnel actions was attributed to the open season for life insurance. In addition, the implementation of an automated payroll/personnel system necessitated processing of at least 12,500 actions as a result of the annual pay increase. The system now also requires personnel actions to place WAE employees on leave without pay status, and to return them to duty and pay status. Other actions such as corrections, cancellations, and amendments to original actions are also included in this figure.

e) Audits/Evaluations Underway

Organization: Office of the Inspector General (OIG)

Title: Review of BLM's Financial Management System

Organization: Office of the Inspector General (OIG)

Title: Procurement Administration

f) Audits Planned

Organization: Office of the Inspector General (OIG)

Title: Procurement Activities—Denver Service Center

H.3. LAW ENFORCEMENT

a) Program Description

A law enforcement effort on the public lands began shortly before the passage of FLPMA. The Wild Free Roaming Horse and Burro Act of 1971 provided basic authority for the hiring of BLM's first special agents. Amendments to the Sikes Act of 1974 and other subsequent special acts added additional authority in specified areas. But it was the passage of FLPMA that gave BLM general law enforcement authority covering all its lands.

The legal jurisdiction on the public lands is proprietary¹ in nature. Therefore, State law also applies to the public lands and their resources.

BLM relies on three separate levels for its total law enforcement program:

1) Special agents, i.e., criminal investigators, who investigate major violations of Federal laws pertaining to the public lands. They are also responsible for total program coordination and liaison with State and local law enforcement officials.

2) Rangers, uniformed employees with law enforcement authority, are assigned only to the California Desert Conservation Area. They prevent violations by providing a high visibility through patrolling the public lands.

3) Cooperative agreements with State and local law enforcement agencies that provide requested law enforcement services.

BLM law enforcement specialists estimate that 85 percent of their work involves crimes against property, including wild horses. Something of the value and diversity of public land resources can be seen in the list of cases which special agents have investigated in the last five years; timber theft, wild horse killing and theft, desert land entry fraud, removal and theft of cactus for commercial use, mineral theft, range arson, destruction of recreation sites, trespass on public lands, removal or defacement of antiquities, and public lands survey marker destruction.

In 1981, BLM employed 17 rangers and 25 special agents, all well-trained in law enforcement. Many of them have degrees in some phase of public land management and all have completed an eight-week police school at the Federal Law enforcement Training Center or its equivalent.

b) Progress Report

Major investigations were initiated regarding:

¹Having less than absolute and exclusive right.

- Thefts of Federal coal in Alabama;
- Fraudulent manipulation of the oil and gas lottery program;
- Theft of native desert vegetation in the Southwest; and
- Abuse of the Wild Horse and Burro Adoption Program.

Convictions have been obtained in all these areas and several were precedent setting.

In addition to criminal violations that require law enforcement actions, there are numerous cases of unauthorized use that are not criminal in nature, but are administrative or civil problems. Unauthorized use accounts for nearly 80 percent of all violations of regulations or laws that are used to administer the public lands.

Therefore, BLM has established the Resource Protection Staff to deal with all aspects of violations, either criminal or civil. The law enforcement section is responsible for all civil violations. This arrangement provides for complete integration of the Resource Protection Program in natural resource management as suggested by the Law Enforcement Program Analysis of October 1978.

c) Issues

- During FY 81 BLM worked with the Secretary to initiate the National Policy concerning "Unauthorized Use".
- The Bureau assisted the Federal Law Enforcement Training Center in the development of national guidelines and curriculum concerning Wildland Fire Investigations.
- BLM worked with the Federal Law Enforcement Training Center, the Department of Agriculture, and agencies within the Department of the Interior to develop the center curriculum for "Archaeological Resource Theft and Destruction Investigations".
- BLM assisted the Office of the Inspector General with investigations concerning fraudulent manipulation of the Oil and Gas Lottery program. Information gained has contributed to the development of guidelines and procedures.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

2) Authorizing Legislation

Federal Land Policy and Management Act, 43 U.S.C. 1701 *et seq.* especially 1733, P.L. 94-579; Taylor Act, 43 U.S.C. 315, P.L. 23-482; Sikes Act, 16 U.S.C. 670, P.L. 95-420; Wild Free Roaming Horse and Burro Act, U.S.C. 1331-40 P.L. 92-1951; Land and Water Conservation Fund Act of 1965, 16 U.S.C. 406b, P.L. 88-5758; National Trails Act, 16 U.S.C. 1061-64, P.L. 59-209; Antiquities Act, 16 U.S.C. 433, P.L. 59-209; Unlawful Enclosure Act, 43 U.S.C. 1061-64, P.L. 48-149; Act of June 3, 1878, 16 U.S.C. 604-606; Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa *et seq.*, P.L. 96-95; 18 U.S.C. Crimes and Criminal Procedures especially 47, 111, 641 1601, 1361, 1510, 1851, 1861; The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat. 2957.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	2,213	3,028	4,196
Appropriation (\$000's)	923	1,261	1,542

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Administration and Law Enforcement

Subactivity: Law Enforcement

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	924	1,711	1,247	1,542
Work Years	19	22	24	25

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Cooperative Agreements	34	52	52	52
Cases Investigated	524	750	841	750



I. Areas of Critical Environmental Concern

I. AREAS OF CRITICAL ENVIRONMENTAL CONCERN

a) Program Description

In response to several recommendations by the Public Land Law Review Commission, the Congress provided a specific management mandate for "areas of critical environmental concern" (ACEC's) which Congress defined as:

"areas . . . within the public lands where special management attention is needed (when such areas are developed or where no development is required) to protect and prevent irreparable damage to important historical, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards."

The Federal Land Policy and Management Act (FLPMA) also provided that the identification of ACEC's be given priority in the "inventory of all public lands and their resources and other values" but that such identification "shall not, of itself, change or prevent change of the management or use of public lands" (section 201(a)).

In the legislative history of FLPMA, Congress made clear that it viewed ACEC's as special places within the public lands.

On August 20, 1980, BLM published in the *Federal Register* its policy and procedural guidelines for a process to identify, designate, and manage ACEC's. This provided for ACEC identification and management to be accomplished through BLM's on-the-ground resource management planning process as an integral part of each resource program's inventory and planning function. Under the guidelines, an approved Resource Management Plan constitutes the official designation of an ACEC. BLM will thus be committed to managing the resources, values, or hazards for which the area was designated in accordance with ACEC's special management requirements to ensure the protection of the most environmentally important and fragile lands. The management policy would

allow compatible multiple uses, including commodity production to the extent they do not unduly risk life or safety or cause irreparable damage to the ACEC resources or values being protected.

b) Progress Report

As of fiscal year 1981, 81 ACECs had been designated; 75 in the California Desert Conservation Area, three in New Mexico, and one each in Idaho, Oregon, and Wyoming. Values cited in these designated areas include: critical wildlife habitats; unique cultural sites; important paleontological resources; and outstanding scenery.

ACECs will continue to be identified and recommended for designation as part of the ongoing resource management planning process. If a Resource Management Plan (RMP) contains recommended ACECs those ACECs are formally designated upon approval of the RMP.

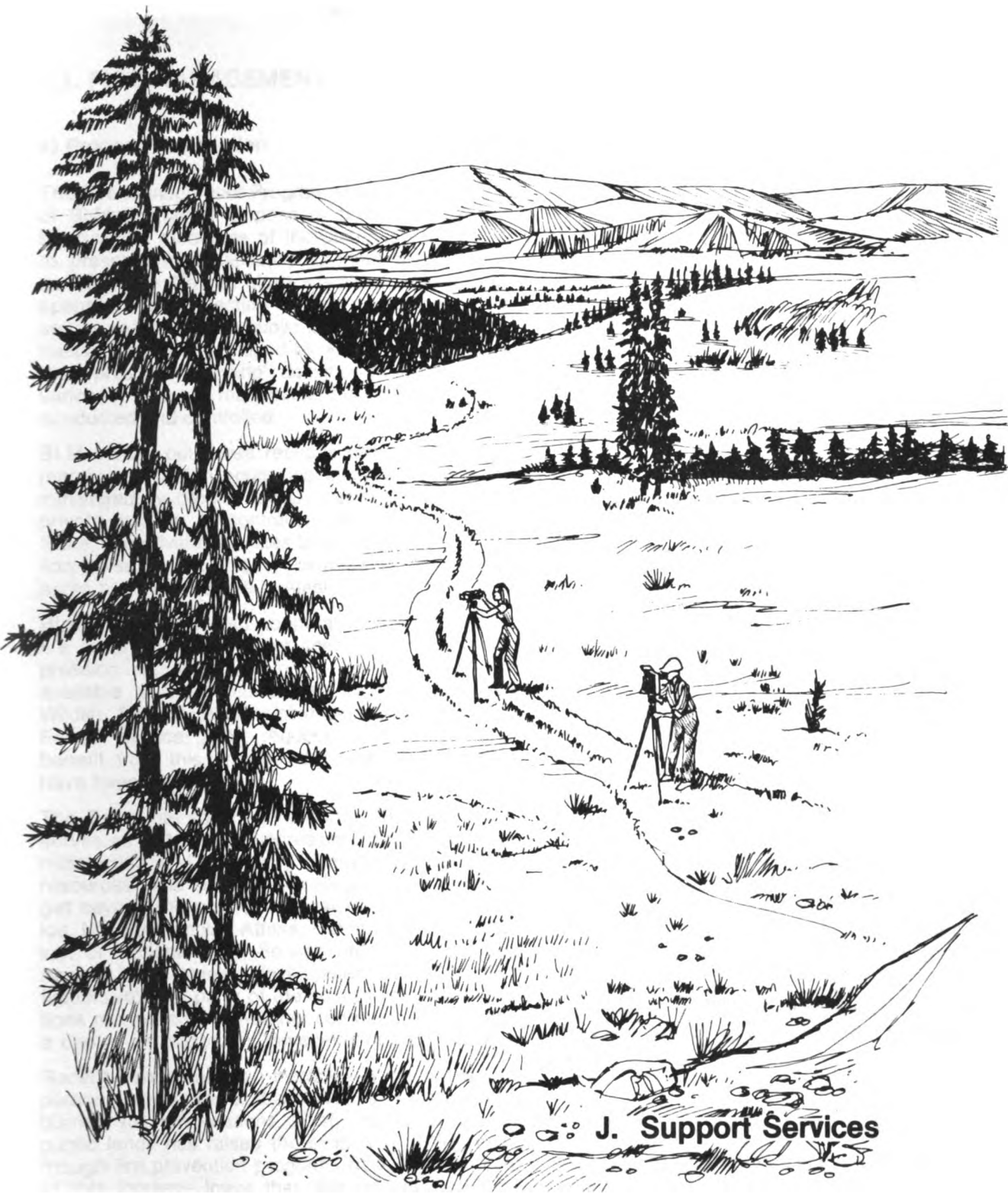
ACEC management plans are being developed and special attention is being given to implementing the management requirements of designated ACECs.

c) Issues

With the projected increase of activities on public lands, important natural and cultural resource values may become more susceptible to irreparable damage. Therefore it will become increasingly important to recognize those values and provide for the necessary special management attention to be afforded ACECs.

d) Budget

The responsibility for developing and implementing specific ACEC management plans lies with the primary benefitting resource program.



J. Support Services

J. SUPPORT SERVICES

J.1. FIRE MANAGEMENT

a) Program Description

The Fire Management Program shares with the rest of BLM the broad purpose of protecting and enhancing the resources of the public lands in order to preserve their capability to meet the resource needs of the Nation. More specifically, BLM is responsible for protecting property and natural resource values on the public lands from wildfire; rehabilitating areas damaged by wildfire; and ensuring that "prescribed burning" designed to accomplish a variety of resource management objectives is safely conducted and controlled.

BLM carries out these responsibilities on approximately 440 million acres, including some land administered by other Federal agencies, States, and private parties. It contracts with other Federal, State, and private agencies to protect roughly 6 million acres of this total. Approximately 220 million acres half the total, are in Alaska.

BLM has entered into cooperative agreements on fire suppression with other agencies, and fire suppression resources not being used by BLM are available to the National Park Service, Fish and Wildlife Service, Bureau of Indian Affairs, and the Forest Service upon request. States may also benefit from this arrangement where agreements have been negotiated.

The Boise Interagency Fire Center (BIFC) in Idaho serves as BLM's fire suppression support center for maintaining and mobilizing interagency firefighting resources. It is sometimes called upon when fires get beyond the control of local BLM, Forest Service, Bureau of Indian Affairs, Fish and Wildlife Service, or National Park Service officials. BIFC also houses a fire training development center for firefighters from all parts of the country, a communications monitoring and weather command station, and a center for equipment development and research.

Recent trends show an increase in the number of person-caused fires and a decrease in the acreage burned for two reasons. First, increased use of public lands has raised the incidence of fire, even though fire prevention programs have kept the rate of this increase lower than the rate of increased use. Second, in 1972, BLM modified its priorities from combating large "disaster" fires and improved both its initial attack capabilities and early fire detection systems. Consequently, most wildfires are now brought under control sooner and the acreage burned is less than in the past.

BLM's plans for carrying out its fire management responsibilities are contained in the Normal Fire Year Planning System developed for each BLM District. In the Normal Fire Year Plan, BLM categorizes all public lands into classes of fire problems. These fire problem classes are based upon historical data of fire occurrence, the value of resources threatened by fire and the estimated behavior of a fire. Operational plans for resolving the fire problem of each class are then developed, tested and evaluated for effectiveness. The final force structure and equipment needs displayed in the plan become the basis for the annual budget. BLM's comprehensive Normal Fire Year Plan was completely updated in 1979.

As techniques for controlling fire have improved, all Federal agencies having wildfire suppression responsibilities have been able to adopt new procedures to use fire as a resource management tool. Prescribed burning is used to enhance wildlife habitat, improve range forage mixes, improve watersheds, improve the visual backdrop, and remove forest harvest residue, as well as many other applications.

b) Progress Report

For BLM in the West, the 1981 calendar year fire season could be described as moderately severe. Large acreages were burned in Idaho and Alaska. The fire season saw 2,870 fires with a total acreage burned of 1,157,975 acres.

BLM's 1981 achievements were as follows:

- 1) The Automatic Lightning Detection System (ALDS) was operational in 1981. Demand by Federal and non-Federal users reached an all time high, beyond the Bureau's capability. Integration of ALDS and real-time weather was tested to provide management with all phases of fire potential.

- 2) BLM developed draft prescribed fire qualifications for people performing prescribed burn operations.

c) Issues

BLM is encouraging more use of prescribed burning as a tool in BLM's stock of resource management techniques. Only recently have BLM policies and knowledge of the efforts of fire on vegetation reached a point where fire can be set for positive purposes. Resource managers have long known that prescribed burning is a cost-effective way of controlling the growth of brush on rangelands, limit-

ing competition from undesirable plantlife, improving wildlife habitat and limiting the buildup of flammable debris. BLM has been studying the effects of fire on various ecosystems and has prepared a handbook of guidelines for the use of prescribed burning. Although technical problems remain, public awareness is now the major difficulty.

The passage of the Alaska National Interest Lands Conservation Act (ANILCA) will transfer the majority of the currently administered BLM land to other Interior agencies, Natives, and the State of Alaska. BLM has provided the major fire suppression to all lands in Alaska, including some State and private lands because BLM already needed to maintain a large fire organization to accomplish its mission. Further, legal requirements written into the Alaska Native Claims Settlement Act specified the Federal Government would provide fire suppression until the lands were "income producing."

With the implementation of provisions in ANILCA, BLM will manage less than 100 million acres and will have an annual fireload of approximately 65-75 fires. Other Interior agencies will manage approximately 140 million acres with a fireload of 150-200 fires per year and the State of Alaska lands will have a fireload of approximately 100 to 150 fires per year. This reduction of approximately 75 percent of lands in Alaska administered by BLM also reduces the fire management responsibility in Alaska. However Interior agencies are working toward giving BLM the authority to provide protection for all Interior managed lands and Native lands in Alaska. This authority is expected to be transferred by the end of 1982.

Due to recent and impending budget reductions, the National Weather Service has indicated a need to drastically reduce or eliminate the "Fire Weather Forecasting Service", used by Federal and State agencies. They have requested that the affected agencies provide the support and funding needed to provide Fire Weather Forecasting. The agencies refused to provide the support and funds, claiming it is the Weather Services's responsibility to provide this service. The service is absolutely essential for any level of protection of the natural resources and it is expected that a resolution or compromise will be reached prior to the 1982 fire season.

New technology presently exists to allow fire suppression organizations to locate forces in areas having a probability of high fire ignition potential. The system can provide the location of the lightning strike, the associated weather conditions, the type of fuel the strike hit, the calculated survival of the ember, and the rate of spread. The components of this system are all proven working systems. The remaining problems are the acquisition of the dedicated computer necessary to calculate

the fire danger information and distribute the information.

The fire management program is being accelerated to provide the use of fire as a tool to modify vegetation. Fire, which is a relatively inexpensive and natural method of vegetative manipulation, is being used more and more due to restrictions placed on other methods. In order to achieve resource management objectives with fire, individual plans must be developed for each fire which will provide the desired results yet accomplish the burn under controlled conditions. This planning effort is time consuming and requires an extensive background in fire control as well as a background in fire effect on natural resources.

d) Budget and Performance Analysis (Fire Management)

The cost of suppression of major wildfires and subsequent rehabilitation work is traditionally reimbursed by the Congress in the following budget year.

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: State Directors and District Managers

2) Authorizing Legislation

Federal Land Policy and Management Act, P.L. 94-579, 43 U.S.C. 1732; Timber Protection Act of 1922, P.L. 67-315, 16 U.S.C. 594; Reciprocal Fire Protection Agreement Act of 1955, 43 U.S.C. 1856 a-d; The Department of the Interior and Related Agencies Appropriation for Fiscal Year 1981, P.L. 96-514, 94 Stat. 2957; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat. 2371.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	15,752	18,422	22,744
Appropriation (\$000's).....	8,710	9,414	7,153

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Renewable Resources Management Subactivity: Fire Management

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	8,710	9,305	9,520	7,153
Work Years	220	193	192	153

6) Performance

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Fire Management Plans (number).....	8	14	10	5
Prescribed Burns (number)	61	45	104	50

Firefighting and Rehabilitation

6) Funding

	1980 Actual	1981 Planned	1982 Planned
Authorization (\$000's).....As Needed	As Needed	As Needed	As Needed
Appropriation (\$000's).....	49,750	49,750	4,560

7) Appropriation Structure

Title: Management of Lands and Resources

Activity: Firefighting and Rehabilitation

8) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	43,380	4,750	41,119	4,560
Work Years	1,228	-	1,317	950

9) Performance

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Number of Fires	2,439	N/A	2,870	N/A
Acres burned	572,218	N/A	1,157,975	N/A

e) Audits/Evaluations Planned

Organization: Office of the Inspector General

Title: Review of Firefighting Equipment and Supplies Maintained at the Boise Interagency Fire Center

J.2. DATA MANAGEMENT

a) Program Description

BLM initiated a study in 1974 to determine its data management requirements for resource and administrative programs. The result of this study, known as the "Strategic Plan for Information Systems Management," is the principal BLM guide for developing data systems and calls for a 7 to 12 year effort to improve data storage, manipulation, and analysis. In FY 81 this plan was updated to identify current priorities and needs to meet today's program emphases and achieve cost efficiencies.

The plan calls for BLM data management capabilities to include: 1) a series of data banks to replace voluminous existing files; 2) easier access to data by headquarters and field offices; 3) capability for remote entry, update, and retrieval of data; 4) availability of textual, numeric, and graphic material in the format desired by the user; 5) land use and yield trend information; 6) word processing; 7) production of year-end and other periodic reports; and 8) the capability to process and analyze data to assist management in making better resource decisions.

FLPMA gave BLM a strong legislative mandate for comprehensive land-use management, a mandate that was further underscored by the Public Rangelands Improvement Act in 1978. The more recent Paperwork Reduction Act of 1980 emphasizes sound use of automatic data processing in the Federal Government. To comply with these mandates and other national needs and respond to a rapidly growing need for analysis of large amounts of data, BLM is in the process of expanding its automated

capability for gathering, storing, processing, and retrieving resource and other pertinent information. This program includes remote sensing, micrographics, various aspects of telecommunications as well as the traditional automatic data processing elements.

The computer systems being developed will support one or more of the program functions related to management of energy and minerals, lands, range, forestry, watershed, wildlife, recreation, cadastral survey, fire protection, roads and trails, access, transportation and rights-of-way, personnel, property, and financial management. Under the concept advocated by the Commission on Federal Paperwork and being implemented by BLM, all information storage, manipulation, and retrieval capabilities are managed as an integrated set of activities.

The remote sensing program promotes the use of specific, technology intensive methods to accomplish the Bureau's resource management objectives. The program is responsible for the following:

- application of environmental information obtained by space borne technology to inventory renewable and mineral resources and assess the effects of OCS development;
- production of thematic displays for management planning which merges remotely-sensed information and digitized supplemental data; and
- guidance on the use of satellite communication to transmit synoptic environmental information from remote data collection stations to centralized user locations.

Remote sensing technologies are demonstrating significant dollar and time savings for BLM, as well as providing better decisionmaking tools for management.

In summary, an efficient information management system is essential to the efficient and effective accomplishment of BLM's resource management and public service responsibilities.

b) Progress Report

1) Automatic Data Processing

Emphasis was directed in FY 81 toward increasing the capability of the State Offices to support local resource management program requirements. This included upgrading all State Office mini-computers, improving State Office organization and facilities for information systems, and working on developing new application programs to meet field needs.

There are now 47 different computer systems involving about 725 different programs operational on the mainframe 66/80 Honeywell Computer at the Denver Service Center. These programs vary from basic administrative programs to handle such items as finances and personnel to resources programs involving energy and minerals, forestry, range, cadastral survey and fire.

The original Strategic Plan was reviewed during 1981 and changes made to reflect current priorities and needs. Refinements in the financial management systems will be made to provide better data for improved management operations and cost efficiencies. Work will also be directed toward improving methods for handling various case management operations involving energy and minerals, lands, forestry, range and other resource programs.

Work was conducted on automating the simultaneous oil and gas drawing entry system. Phase I of the revised process covering a manual system to process applications was completed. Work is progressing on Phase II to automate this process. This is about 75 percent complete. Funds were provided to upgrade the mini-computers in all State Offices to assist in leasing work in the future.

Work continued on development of a Bureauwide computer graphics process. The ADS/MOSS graphic application package was tested in Wyoming and New Mexico. Further refinements are needed so that this will satisfy various users' needs.

Utilizing the mining claim recordation (MCR) on-line automated system, BLM has recorded approximately 1.4 million mining claims on the public lands. During FY 81, 190,000 mining claims were received and 315,000 mining claims recorded, therefore, reducing the backlog from 140,000 to 15,000. For all practical purposes, the Bureau is now on a pipeline basis as related to the mining claim automated system.

Nine State Offices are currently placing special emphases on microfilming the mining claim documents and returning the paper documents to the claimant or destroying the paper in accordance with the Bureau's disposal schedule. BLM has microfilmed 225,000 mining claim case records and returned or destroyed some 69,000 MCR records resulting in space savings of 510 cubic feet.

Work continued on development of the Trial Project. This will automate land legal survey descriptions and identify land ownership. Development of the land survey portion is complete and implementation will be initiated in 1982. Development of the land status (ownership) part is about half done and will be completed by the end of 1982.

Work also continued on development of improved procedures for processing the Soil Vegetation Inventory Method (SVIM) survey data. In addition, inventory data on 22 different survey areas were processed. Another 30 areas will be completed in 1982. These data will aid in sound land management decisions and provide a base for future long-range monitoring studies.

2) Remote Sensing

The year 1981 marked the transition from developing ground cover classification techniques using Landsat data to operationally applying these techniques in fulfilling State Office needs. Twelve million acres of vegetation in Alaska, Arizona, Idaho, and New Mexico were classified at a cost savings of more than \$0.08/acre over traditional labor-intensive ground cover classification methods. Fuel load maps for the fire protection program were prepared for various areas of BLM responsibility in Alaska and the Vale District in Oregon for use with automatic lightning detectors. Such maps permit rapid assessment of potential fire risk from remote strikes. New applications under development in 1981 include monitoring albedo change to identify unauthorized mine trespass in Florida and Alabama. Techniques are also being developed to automate range type area designations for range use by merging vegetation, soil and elevation information. In the past, these basic BLM responsibilities have either depended on labor-intensive operations or have not been possible with limited personnel. In 1981, Landsat technology is permitting BLM to accomplish its mission better over vast areas with less manpower commitment.

c) Issues

Increased use of ADP and remote sensing techniques is necessary if the Bureau is to intensify its land management operations to meet local State and national needs. Technology-intensive methods must be utilized rather than labor-intensive methods to meet the increasing demands on the public lands. This is especially important to assist current efforts to reduce Government spending. Expanded use of such cost-effective tools needs to be recognized as a key challenge as well as an opportunity.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director for Services

Field Administrators: State Directors and Director, Eastern States Office

2) Authorizing Legislation

Federal Land Policy and Management Act of 1976, P.L. 94-579, 43 U.S.C. 1711, 1731, 1732, 1781; The Department of the Interior and Related Agencies Appropriation for FY-81, P.L. 96-514, 94 Stat. 2957.

3) Funding

	1980 Actual	1981 Actual	1982 Planned
Authorization (\$000's).....	19,183	22,883	20,583
Appropriation (\$000's)	14,990	18,714	11,900

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Planning and Data Management

Subactivity: Data Management

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	15,588	16,286	16,335	11,000
Work Years	298	283	295	255

6) Performance

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Office Installation of Data Processing Equipment (mini- computers).....	11	-	*12	-
Office Installation of Terminal Equipment.....	200	42	47	30

*Upgrade of existing minicomputers

e) Audits Completed

Organization:	Bureau of Land Management
Title and Date:	Bureauwide ADP Evaluation, June 1, 1981
Major Findings:	Application work on "software" is occurring at all levels of the organization with little attempt to ensure compatibility, reduce duplication of effort, or ensure that programs meet the needs of all levels of the organization. There was a general recognition that some type of authorization should be required prior to development of software and the need for compatibility of program systems.
BLM Action:	A standardized process for software development has been issued. There is an inventory of the current software programs in progress and upon completion the following will be done: 1) All application programs will be reviewed; duplication will be eliminated; and additional program needs will be identified by May 1, 1982. 2) Program needs will be prioritized and scheduled through the Annual Work Plan (AWP) process.

J.3. CADASTRAL SURVEY

a) Program Description

A cadastral survey marks and defines the legal boundaries of a tract of public land by establishing monuments, or corner marks, on the ground and recording their location in field notes and plats. Surveys serve as the basis for patents and other documents used for conveyance of public lands out of Federal ownership and for overall administration and management of lands retained in Federal ownership. Also included in the Public Land Survey System (PLSS) are Federal boundaries on the Outer Continental Shelf. BLM acquired responsibility for the administration and execution of cadastral surveys when the General Land Office was merged with the Grazing Service to form BLM in 1946.

Legally defensible boundaries are essential for identification of ownership so that the management of the public lands can proceed. Legal property descriptions are required for public land transfers, energy development, easement acquisition, timber sales, and grants of right-of-way.

Cadastral Survey also resurveys those areas where markers have become lost or obliterated for the purpose of defining the boundaries between Federal and State land.

Cadastral survey information is depicted on a base through the use of cartographics. The accurate portrayal of land records and status on a geographically referenced base is of prime importance to land managers, both public and private. Many of the BLM mapping requirements are satisfied through cooperative efforts with other Federal agencies.

Much of Cadastral Survey's work in the Lower 48 States is performed on a reimbursable basis for other Federal agencies. BLM performs surveys for the Forest Service, Bureau of Indian Affairs, National Park Service, the Bureau of Reclamation, U.S. Fish and Wildlife Service, the Department of Defense, and occasionally the Department of Justice. Unless approved by BLM, surveys do not carry the full weight of Federal law and do not become part of the public land records system. The Forest Service (FS) and the National Park Service (NPS) have each signed a Memorandum of Agreement (MOA) with BLM which cites the conditions under which personnel of the FS and NPS can execute field surveys under BLM special instructions and official approval.

Original survey work remains a major program element in Alaska, where 90 percent of all original survey work is now performed. The Alaska Statehood Act of 1958 required the State to select 105 million acres of Federal lands within 25 years. The task of surveying those lands was compounded by the Alaska Native Claims Settlement Act of 1971 (ANCSA), which provided for a grant of 44 million acres of Federal land to the State's Eskimos, Indians, and Aleuts, as well as for the designation of additional acreage as national parks, wildlife refuges, national forests, and wild and scenic river areas. Before title to any of this land can be transferred to Natives or to State and Federal agencies, boundaries must be surveyed, private rights identified, and municipal boundaries and specialized sites defined.

This sudden increase in surveys needed in Alaska spurred BLM to find new survey technologies. The Auto-Surveyor, an inertial guidance system which can identify an in-flight aircraft's exact longitude and latitude position, was adopted to help meet these survey needs. The use of contractors to perform large-scale original surveys was also implemented with the increase in Alaska survey needs.

b) Progress Report

BLM has completed roughly 75 million or 50 percent of the 149 million acres of boundary survey work in Alaska required under the Alaska Statehood Act and the Alaska Native Claims Settlement Act (ANCSA) prior to land transfers to the State

and to Native groups. These boundary surveys, however, do not complete the survey work needed to convey the lands to the Natives and the State. The internal surveys to identify private rights is still needed. In addition, 290 million acres remain unsurveyed in Alaska. This 290 million acres includes the millions of acres of surveys needed to identify boundaries of national parks, forests, wildlife refuges, and wild and scenic rivers created by the Alaska National Interest Lands Conservation Act (ANILCA).

Two new survey technologies were implemented in FY 81. Automated Plat Drafting was implemented in Colorado and has reduced field survey costs. A system using total station and doppler survey equipment to provide geographic position coordinates for Public Land Survey System (PLSS) corners was also implemented in Colorado. As part of this system, computer software has been developed to compute the PLSS corner positions from raw field or archival cadastral survey data. This is increasing the cost effectiveness of dependent re-surveys.

c) Issues

The backlog of unsurveyed public land is the primary issue in the Cadastral Survey Program. Over 300 million acres of public land have yet to be surveyed. It is estimated that it will take hundreds of years to complete these surveys. Over the last decade problems in staffing, funding, interagency coordination, workload, planning, and organization have contributed to the slow reduction of this backlog.

d) Budget and Performance Analysis *Alaska Program*

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: Director, Alaska State Office

2) Authorizing Legislation

Federal Land Policy and Management Act of 1976, 43 U.S.C. 1711, 1728, P.L. 94-579; Department of the Interior and Related Agencies Appropriation for FY 81, P.L. 96-514, 94 Stat. 2957; Alaska Native Claims Settlement Act of 1971, 43 U.S.C. 1612, P.L. 92-203; Alaska Act of Admission as amended, 48 U.S.C. 2, P.L. 85-508; Alaska National Interest Lands Conservation Act of 1980, P.L. 96-47, 94 Stat. 2371.

3) Funding

	1980	1981	1982 Planned
Authorization (\$000's).....	11,092	11,312	11 616
Appropriation (\$000's)	11,320	11,510	9,418

4) Appropriation Structure

Title: Management of Land and Resources

Activity: Cadastral Survey

Subactivity: Alaska Survey

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	10,943	11,010	11,835	9,418
Work years	93	93	185	167

Acres Required to be Surveyed	Through FY 81	Estimate FY 82	Remaining to be Surveyed	Planned for Completion by
ANCSA (44,000)	27,818	1,669	14,513	1986
State Sections (104,450)	43,838	1,730	58,882	1995
All Other (226,854)	40,647	1,013	185,194	2000 +
Total (375,304)	112,303	4,412	258,89	

e) Budget and Performance Analysis *Lower 48 States*

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrator: Director, Denver Service Center & Directors, State Offices

2) Authorizing Legislation

Federal Land Policy and Management Act of 1976, 43 U.S.C. 1711, 1738, P.L. 94-579; Department of the Interior and Related Agencies Appropriation for FY 81, P.L. 96-514, 94 Stat. 2957; Act of May 18, 1796, (1 Stat. 465).

3) Funding

	1980	1981	1982 Planned
Authorization (\$000's)	11,101	11,481	12,257
Appropriation (\$000's)	13,040	13,612	9,836

4) Appropriation Structure

Title: Management of Lands and Resources

Activity: Cadastral Survey

Subactivity: Lower 48 States

5) Program Costs

	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Dollars (\$000's)	15,720	13,112	14,177	9,836
Work Years	238	237	384	293

6) Performance

Work Units	1980 Actual	1981 Planned	1981 Actual	1982 Planned
Cartography (number)	323	371	404	390
Original Survey (miles)	344	135	85	50
Resurveys (miles)	5,811	5,616	3,216	4,500
Special Surveys (miles)...	232	28	33	40
Remonumentation (number)	840	100	395	400



K: Special Projects

K.1. Program Description

BLM is responsible for administering energy development projects and nonenergy projects on or crossing public lands. BLM also has lead responsibility for environmental analysis of projects involving authorization for public land use. These projects may have regional, national, or international significance needing high-level Bureau, Departmental, and interagency guidance and coordination. The Office of Special Projects (OSP), reporting to the BLM Director, was created to provide this critical executive guidance.

The Office of Special Projects in FY 81 consisted of two offices: 1) The Headquarters Office, located in Washington, D.C., was responsible for overall management and coordination of BLM's, and in some cases, the Department's efforts to manage special projects assigned to OSP by the Director. 2) The Special Projects Environmental Impact Team (SPEIT) is a group of technical and administrative personnel responsible for preparing and processing EIS's on special projects. Although located in Denver, Colorado, to be close to the project sites, SPEIT is a part of the Headquarters Office.

The focus of activity was on those projects of a regional nature requiring significant inter-Departmental policy and procedural coordination for the development of major, non-Bureau initiated facilities. Normally, all actions from the time of designation as a special project through publishing the final environmental statement were managed by OSP.

The OSP was also involved in management of sensitive projects which are assigned by the Director. Emphasis is placed on major interstate reimbursable projects and on proposals for major energy facility developments. Nonenergy projects may also be designated as special projects. To be considered for designation as a special project, a proposal should include one or more of the following characteristics:

- Is identified as having a key, quantifiable role in meeting national energy goals;
- Is proposed or processed by virtue of a legislative act specifically for the project;
- Requires extensive coordination and consultation at executive levels above the Bureau;
- Is an integral part of a larger project of national significance which is the responsibility of another agency;
- Involves more than one BLM State Office's jurisdiction and is of social or economic importance on a regional, national, or international scale;

- Is an early effort in an issue area and likely to set precedents or establish standards for quality; and
- Is likely to attract major political or legal attention.

Projects assigned to OSP in 1981 included:

Alaska Natural Gas Transportation System (ANGTS)

Energy Transportation Systems, Inc. (ETSI) Coal Slurry Pipeline

Northern Tier Pipeline

Allen-Warner Valley Energy System

San Juan Basin Action Plan

Rocky Mountain Pipeline

San Geronio Pass Wind Generation Site

Trans-Alaska Crude Oil Pipeline (TAPS)

The progress and issues of these projects are discussed in the following sections.

A reorganization of the BLM Washington Office, effective in FY 82, dissolved the Office of Special Projects and transferred the responsibility for administering "Special Projects" to the appropriate State Directors.

Audits/Evaluations Underway

Organization: General Accounting Office

Title: The Desirability of Greater Advance Public Planning for the Location of Energy Facilities

K.2. ALASKA NATURAL GAS TRANSPORTATION SYSTEM (ANGTS)

a) Progress Report

The ANGTS is a project to transport natural gas from Prudhoe Bay, Alaska, via a 48-inch pipeline to markets in the lower 48 states. ANGTS will also transport natural gas from sources in Canada. The 4,790-mile pipeline system includes 741 miles in Alaska, 2,021 miles across Canada splitting into western and eastern legs north of Calgary, Alberta, 911 miles of the western leg extending south to the San Francisco area, and 1,117 miles of the eastern ("northern border") leg extending from Montana to a point south of Chicago, Illinois. The pipeline is designed to carry about 2.4 billion cubic feet of natu-

ral gas daily. The ANGTS is estimated to cost about \$25 billion and will be the largest privately financed construction project ever undertaken. It is scheduled for completion in 1984. The eastern leg is the subject of a suit filed by the State of North Dakota and joined by South Dakota to determine State authority in route selection.

A supplementary grant has been issued for the microwave towers in Montana. The Northern Border pipeline Company has started construction.

On December 1, 1980, The Secretary signed the right-of-way grant for the Alaska portion of the ANGTS. In March of 1980, the right-of-way grant for a pre-built portion of the western leg was issued, and construction completed in 1981. The eastern leg right-of-way grant was issued in March, 1981. The pipe line is now under construction.

K.3. ENERGY TRANSPORTATION SYSTEM INC. (ETSI) COAL SLURRY PIPELINE

a) Progress Report

This coal slurry pipeline is designed to carry 37.4 million tons of coal per year through a 46-inch buried pipe. The total length is in excess of 1,800 miles originating with five coal mines in Wyoming and serving six power plants in Oklahoma, Arkansas, and Louisiana. It will cross six miles of BLM land and 26 miles of Forest Service land. The final EIS was published July 1981. ETSI has requested BLM to analyze a new route alternative; the Wyoming-Colorado Intertie Pipeline which would go through northeastern Colorado into Kansas. The analysis will supplement the final EIS.

K.4. NORTHERN TIER PIPELINE

a) Progress Report

The Northern Tier Pipeline is designed to carry crude oil from the Pacific Coast to refineries of the northern tier and midwestern States. It will extend about 1,500 miles from a marine terminal at Port Angeles, Washington to existing pipeline connections at Clearbrook, Minnesota. The pipeline will initially carry 700,000 barrels per day (b/d), with eventual capacity of 930,000 b/d.

On January 17, 1980, President Carter accepted Interior's recommendations and issued his decision in favor of Northern Tier (over three alternatives), contingent on hooking up with Puget Sound refineries and a showing by Northern Tier of adequate financ-

ing. Northern Tier received the right-of-way grant from Interior within 92 days of the President's decision (April 21, 1980). If Northern Tier fails to acquire adequate financing or its Washington State permit, Trans Mountain Pipeline Company would be offered the same opportunities afforded Northern Tier under the provisions of Title V of the Public Utility and Regulatory Policies Act of 1978. This would mean an alternative route from Low Point, Washington to Edmonton, Canada and then to an existing distribution system that would supply essentially the same refineries as Northern Tier.

The Energy Facility Site Evaluation Council (EFSEC) for the State of Washington is conducting contested case hearings. Once the hearings are complete, EFSEC will prepare a final order with recommendations to the Governor of Washington. He will then have 60 days to make a decision approving or disapproving the pipeline. The decision is expected in early FY 82.

b) Issues

Lawsuits were filed against the U.S. by: 1) No Oil Port, Inc.; 2) the lower Elwha Band of Klallam Indians; and 3) Port Angeles and Clallam County. Challenges in this suit dealt with the Public Utilities and Regulatory Policies Act (1978) decisionmaking process and the National Environmental Policy Act (1969) procedures. The Justice Department filed a motion for summary judgment in September 1980 and the judge ruled in favor of the Federal Government in early February 1981 on all issues except Indian plaintiff tribes' allegations regarding alleged treaty violations. This issue has been the subject of further court proceedings and on January 21, 1982, they were argued before the district court. A decision is pending. All of the other issues were appealed to the U.S. Court of Appeals for the Ninth District.

K.5. ALLEN-WARNER VALLEY ENERGY SYSTEM

a) Progress Report

The Allen-Warner Valley (A-WV) Energy System is a cooperative venture by seven parties who propose to develop a complex energy system involving two power plants, a coal slurry pipeline system, a coal field, a water project, and a transmission line system in Utah, Arizona, Nevada, and California. The Nevada Power Company (NPC), the Southern California Edison Company (SCE), the Pacific Gas and Electric Company (PG&E), and the City of St.

George, Utah, four of the participants, would own the coal slurry pipeline and electrical generating and transmission components of the system. Utah International, Inc. (UII), would mine its own existing coal leases, as well as those held by Nevada Electric Investment Company. The water projects would be owned by the Washington County (Utah) Water Conservancy District. Approximately 85 percent of the power produced by the system would be consumed in the California utilities (SCE and PG&E) service areas.

One coal-fired steam-electric generating plant, Harry Allen, would be located 25 miles northeast of Las Vegas, Nevada and the other plant, Warner Valley, would be located 13 miles southeast of St. George, Utah. Approximately 10 million tons of coal would be mined (underground and surface) annually from the Alton coal field, near Kanab, Utah, and transported 170 miles in slurry form via a 12-inch pipeline to the Warner Valley plant and a 22-inch pipeline to the Harry Allen plant. About 10,000 acre-feet of deep groundwater would be used annually to transport the slurried coal to the power plants. Cooling water for the Warner Valley plant would be supplied from a 55,000 acre-feet off-stream reservoir, a component of the water project, which would receive its water from diversions from the Virgin River.

Transmission facilities would include: 1) a 138-KV line from the Warner Valley plant to the St. George substation; 2) a double circuit 345-KV line between the Warner Valley and the Allen plants; 3) two 230-KV lines from the Allen plant to the Pecos substation near Las Vegas, Nevada; and 4) two 500-KV lines from the Allen plant to the Lugo substation near Victorville, California.

On January 15, 1981, the Secretary of the Interior authorized the use of public lands for the Harry Allen Power Plant, a coal slurry pipeline to the power plant, and transmission facilities through the California Desert Conservation Area within the Interstate 15 utility corridor. Decisions on the Warner Valley Power Plant and the water project are postponed pending a decision on the air quality permit by EPA and until discussions between the Fish and Wildlife Service and the Washington County Conservancy District concerning the woundfin minnow are concluded.

b) Issues

1) Air Quality

Siting of both power plants involves air quality concerns. In early January 1981, EPA issued a notice of its intent to issue a Prevention of Significant De-

terioration (PSD) permit for the Harry Allen Power Plant.

2) Threatened and Endangered Species

The dwarf bearclaw poppy would be affected by construction of the Warner Valley reservoir and by indirect impacts resulting from the increased human population. The woundfin minnow would be affected by the reduction of Virgin River flows as water is diverted into the off-stream reservoir.

3) Water

Extraction of deep ground water for coal slurry purposes could affect existing wells and springs near the Alton coal field.

4) Southern Utah Coal Unsuitability Petition

The Office of Surface Mining Reclamation and Enforcement (OSM) has been petitioned by the Environmental Defense Fund, Sierra Club, Friends of the Earth, and seven Alton area landowners to declare certain lands within the Alton coal area, the proposed coal source for the A-WV energy system, as unsuitable for all or certain types of mining under Section 522 of the Surface Mining Control and Reclamation Act.

5) Need for the Project

The participants have indicated a need for the 2,500-MW powerplant for load growth purposes. Independent analyses, however, indicate a need for 2,135MW in 1990, primarily for reduction of oil-fired generation.

6) Loss of Sponsors

The Southern California Public Utilities Commission ruled in FY 81 that California did not have a need for power produced by this system at this time. SCE and PG&E, therefore, dropped out as sponsors of the system.

On May 24, 1978 Nevada Power Company filed suit in the United States District Court or the district of Utah, seeking to invalidate the regulations under which it was charged for cost reimbursement for the Allen-Warner Valley project. The Utah district court ruled adversely to the Department on April 24, 1981, and entered judgment on June 19, 1981, enjoining the Department from requiring cost reimbursement from Nevada Power under the present

regulations. The decision is presently on appeal to the Court of Appeals for the Tenth Circuit.

On May 29, 1981, Nevada Power instituted an action for refund in the Court of Claims, based on the favorable ruling of the Utah District Court. On the Department's motion, the Court of Claims case has been stayed pending the outcome of the Tenth Circuit appeal.

K.6. SAN JUAN BASIN ACTION PLAN (BISTI)

a) Progress Report

This is a complex project in Northwest New Mexico encompassing: a 2,000-MW coal-fired generating power station (by Public Service of New Mexico; a new town site for employees (land exchange); Preference-Right Lease Applications for coal; a regional coal leasing sale, in 1983; National Monument expansion; power transmission and water line rights-of-way permits for instate power transmission and nonculinary water lines.

The BLM New Mexico State Director has established a steering committee to oversee and direct the development of the complete San Juan Basin Action Plan.

b) Issues

The proposed project area has extensive vestiges of ancient cultures and animals, covering or enmeshed in *coal*. How to extract the coal and save the relics? Which surface areas must be reserved for viewing by future generations? These considerations must be coupled with National Park proposals, occupancy trespass, grazing of livestock, power lines and roads (access), town site developments, and people pressures.

K.7. ROCKY MOUNTAIN PIPELINE PROJECT (RMPP)

a) Progress Report

The Rocky Mountain Pipeline Project is a proposal to construct a 36-inch gas pipeline from southwest Wyoming across Utah and Nevada to Needles, California for a total of 610 miles. The pipeline has a designed capacity of about 800 thousand cubic feet per day (Mcf/d) with initial start-up proposed for 413 (Mcf/d).

BLM and the Federal Energy Regulatory Commission (FERC) are jointly preparing a final EIS scheduled for release in December 1981. To date, two major alternatives have been identified for the EIS. One, across Nevada and down the Owens Valley in California, is considered a route alternative. The second, a systems alternative makes use of looping the existing and proposed ANGTS pipeline in Idaho, Oregon, and California. Construction is to be complete within one year after issuance of the right-of-way grant.

b) Issues

The systems alternative may be in conflict with the Western Delivery System and the ANGTS from Stanfield, Oregon to San Francisco, California, requiring additional looping and larger diameter pipe.

K.8. SAN GORGONIO PASS WIND POWER GENERATION SITE

a) Progress Report

Wind Farms Limited and others have applied for right-of-way permits in San Gorgonio Pass, Riverside County, California, to erect wind generating machines on public lands.

Overall lead responsibility for this project was reassigned to the California State Director the summer of 1981 because the project no longer met the criteria for a special project. Since that time, BLM developed an interim policy on wind energy and a notice calling for expressions of interest was issued in the *Federal Register* August 26, 1981; the call closed October 26, 1981.

K.9. TRANS-ALASKA PIPELINE SYSTEM (TAPS)

a) Progress Report

On January 23, 1974, the Secretary of the Interior signed the right-of-way grant for the 789 mile Trans-Alaska Pipeline to deliver crude oil from its source at Prudhoe Bay on the north slope of Alaska via a 48-inch pipeline to the ice-free port of Valdez, Alaska, on Prince William Sound. Construction was completed in 1977 and the pipeline started transporting crude oil to tankers in Valdez for distribution to ports in the conterminous 48 States.

The Trans-Alaska Pipeline is designed for a peak flow of 2 million barrels a day. The present flow rate is 1.5 million barrels a day.

b) Issues

The Alaska BLM Office of Special Projects continues to monitor compliance with the grant stipulations. Primary emphasis is on suspected pipeline settlement areas, corrosion protection, crude oil leak detection systems, earthquake monitoring system, and coordination between Alaska Pipeline Service Company and Northwest Alaskan Pipeline Company where the two pipelines and the two companies' activities are in close proximity to each other.

c) Audits/Evaluations Completed

Organization: General Accounting Office (GAO)
Title and Date: Trans-Alaska Oil Pipeline Operations:
More Federal Monitoring Needed, January 6, 1981, (EMD-81-11)

Major Findings:

GAO found that the operator of the Trans-Alaska Pipeline System has at times varied from the requirements of federally imposed stipulations. DOI monitors have not determined whether these variances are justified. GAO feels that more research is needed to determine the long-term environmental impact of pipeline activity.

Actions:

BLM has recommended that Alyeska's alternative program for detecting pipe settlement be approved. BLM has also requested a written report of Alyeska's findings regarding a subsurface radar profiling system to evaluate its applicability for detecting thaw bulb growth and associated pipe settlement. Studies to determine the long-term effect of the pipeline on the environment have been initiated by BLM.

Organization:

General Accounting Office (GAO)

Title and Date:

Environmental and Other Problems along the Alaska Pipeline Corridor, April 8, 1981 (EMD-81-69)

Major Findings:

GAO recommends that BLM work with the State of Alaska in developing a plan which provides for the correction of haul road deficiencies. GAO also recommends that BLM revise its land use plan for Federal lands adjacent to the haul road, and to take into consideration State plans for public travel.

BLM Action:

BLM has been working closely with the State on haul road issues. The State has prepared a plan for correction of haul road deficiencies and BLM has been directed to coordinate closely with the State in implementing this plan. BLM has amended land use plans to reflect the opening of the haul road to the public.

V. APPENDIX

V. APPENDIX

BLM Organizational Structure

The Bureau of Land Management was established on July 16, 1946, through the consolidation of the General Land Office (created in 1812) and the Grazing Service (formed in 1934) as set forth in the President's Reorganization Plan 3 of 1946. Since 1946, BLM has evolved into a decentralized, line and staff organization. The last page of this Appendix is an organizational chart of BLM.

BLM Headquarters Office, in Washington, D.C., is headed by the Director and Associate Director. They are supported by three Deputy Directors who function as line officials and who, together with the Director and Associate Director, provide top-level executive leadership and management.

The Headquarters Office develops and translates executive, legislative, and judicial policy into specific sets of programs to pursue national goals on a consistent basis throughout the BLM's field organization.

It identifies policy and decision needs for the mid and long-term future and provides support to Secretarial Officials in coordination of BLM programs with those of other Federal, state, and local governments. The Headquarters Office also assures that program responsibilities delegated to other BLM units are being fulfilled according to established policies and procedures.

There are 12 State Offices each headed by a State Director with line authority. These offices are the intermediate supervisory and administrative offices responsible for all land and resource programs within their geographic area of responsibility. Each BLM State Office administers a geographic area which generally conforms to State boundaries and consists of one or more States. The map, on the last page, shows the location of the State Offices. These offices are responsible for planning, developing, and managing renewable and nonrenewable resources programs, and for maintaining relations with the public and with a variety of organizations. The acreage which western State Offices manage ranges from seven million acres of public lands in Montana to about 150 million in Alaska. The Eastern States Office, headquartered in Alexandria, Virginia, manages approximately 60,000 acres in states which border on or are east of the Mississippi River and is responsible for mineral leasing on 24 million acres of federal reserved mineral ownership.

At the local level, some 55 District Offices develop and carry out resource management work programs. Each office has responsibility for a portion

of the geographical area under the jurisdiction of the State Office. Districts are the basic field component of BLM and are headed by a District Manager, who is a line official. In the lower 48 States, the largest district is the California Desert District which contains over 2 million acres. The smallest is Dickinson in North Dakota with 62 thousand acres. The average size of a district in the lower 48 is about three million acres, or an area about the size of Connecticut. In Alaska, the Anchorage and Fairbanks District sizes are changing rapidly, due in large part to the Alaska National Interest Lands Conservation Act, and are therefore not broken out as to their respective size.

A district is divided into Resource Areas. The line official for an Area Office is the Area Manager, who has responsibility for day-to-day resource management activities and implementation of on-the-ground actions for use of the public lands. Resource Areas in the lower 48 States range in size from about 5.3 million acres in the Stateline-Esmeralda Resource Area of Nevada to about 7,000 surface acres in the Oklahoma City Resource Area.

There are 163 Area Offices in BLM, many of them sharing office locations with District Offices, 51 are detached Resource Area Headquarters in separate communities.

Two Field Offices provide special support to BLM: The Denver Service Center and the Boise Interagency Fire Center. The Denver Service Center provides consolidated administrative support to State and District Offices and, to some extent, to the Washington Office. It is also charged with gathering, storing, and retrieving natural resource data and adapting scientific and technological concepts to field use. The line official of the Service Center is a Director who reports to the BLM Director in Washington.

The mission of the Boise Interagency Fire Center (BIFC) is to pool interagency fire fighting resources and deploy them when wildfires get beyond the control of local BLM Forest Service, Bureau of Indian Affairs, Fish and Wildlife Service, and National Park Service officials. The responsible BLM official is the BLM Director, BIFC, who reports to the Assistant Director, Technical Services in Washington. BIFC has a permanent work force which is supplemented by additional personnel as fire conditions dictate.

Four Outer Continental Shelf (OCS) Offices are responsible for field-level staff work for OCS oil and gas leasing. This consists of two major efforts: developing environmental statements and conducting lease offerings. The offices are in Anchorage, Los

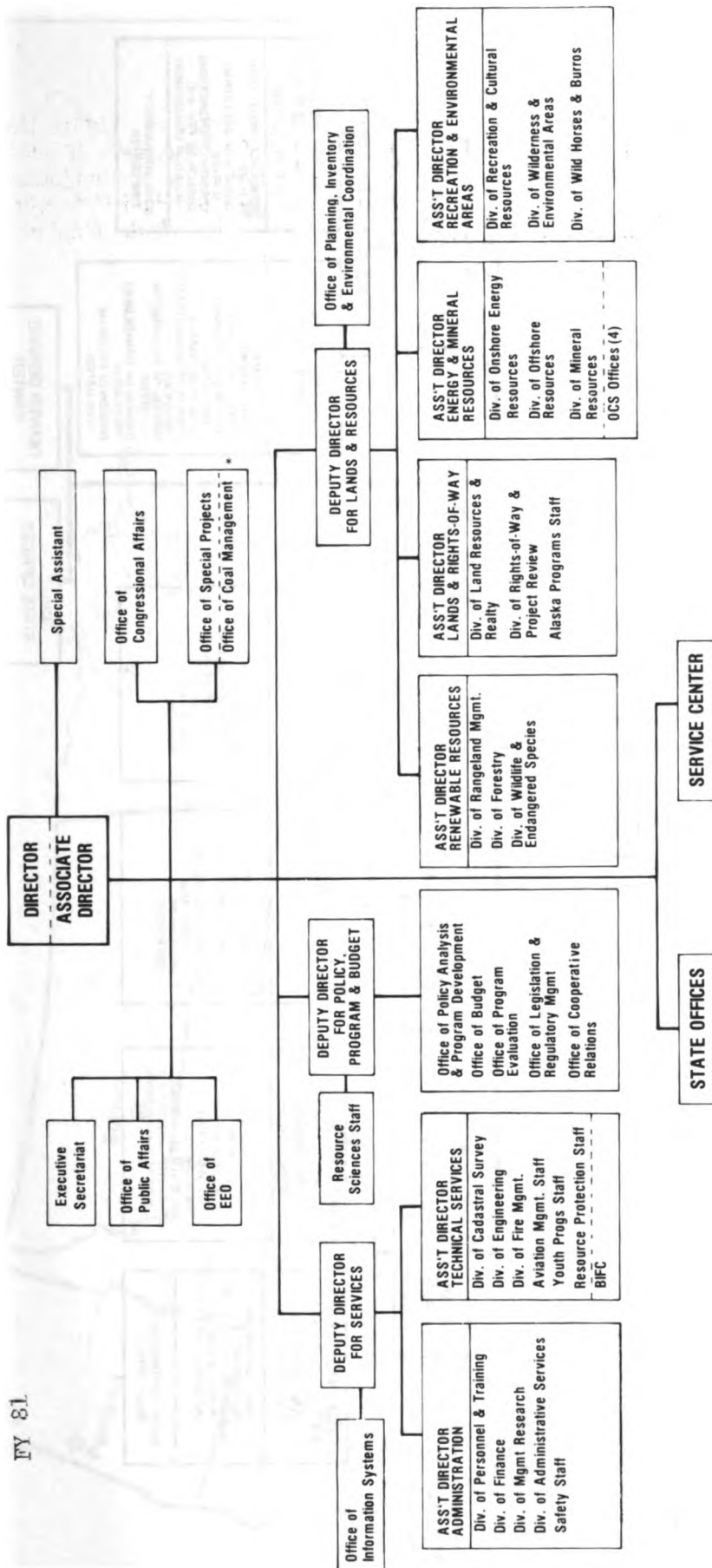
Angeles, New Orleans and New York. Their Managers report to the Assistant Director, Offshore, Energy and Mineral Resources in Washington.

On June 30, 1981, the Secretary approved a reorganization of BLM's Headquarters Office with the changes effective October 15, 1981. The reorgani-

zation was designed to increase BLM's efficiency and effectiveness and place greater emphasis on high priority programs. An organizational chart reflecting the reorganization is included. This report does not reflect this reorganization because of the effective date.

BUREAU OF LAND MANAGEMENT

FY 81

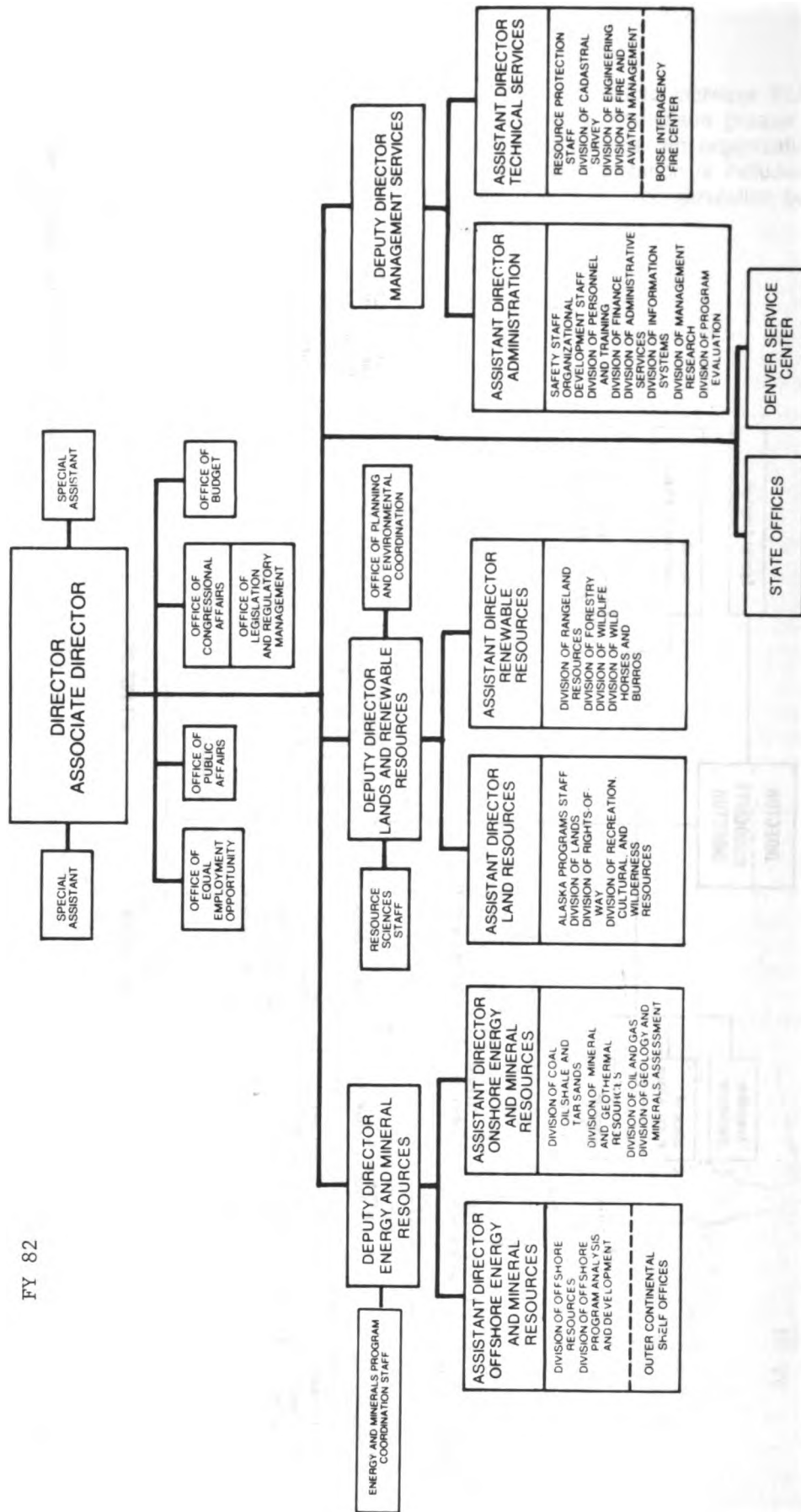


Revised 6/80

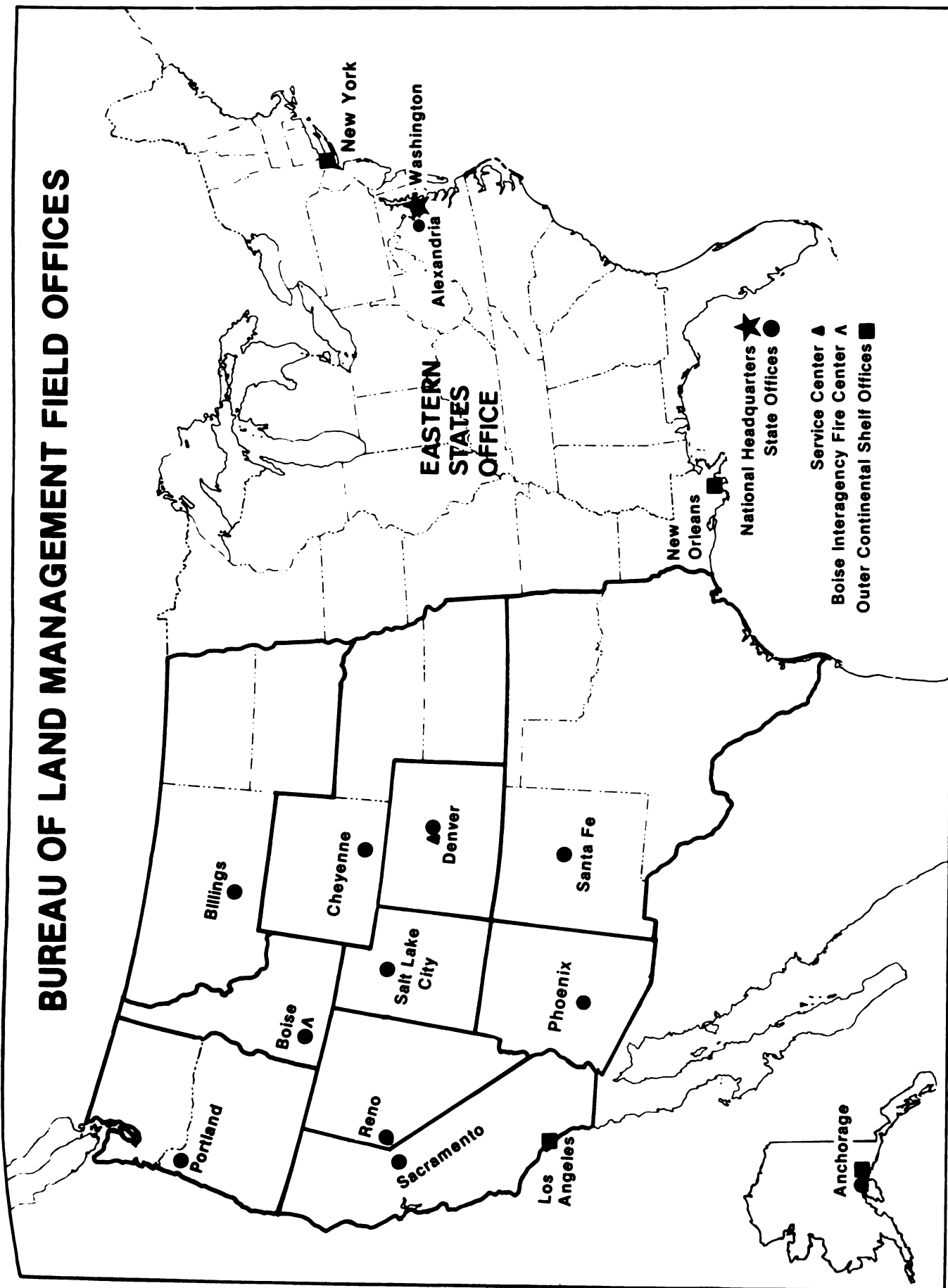
* Includes the Office of Coal Management until Coal Program is Operational

BUREAU OF LAND MANAGEMENT

FY 82



BUREAU OF LAND MANAGEMENT FIELD OFFICES



UNITED STATES
DEPARTMENT OF THE INTERIOR
WASHINGTON, D. C. 20240

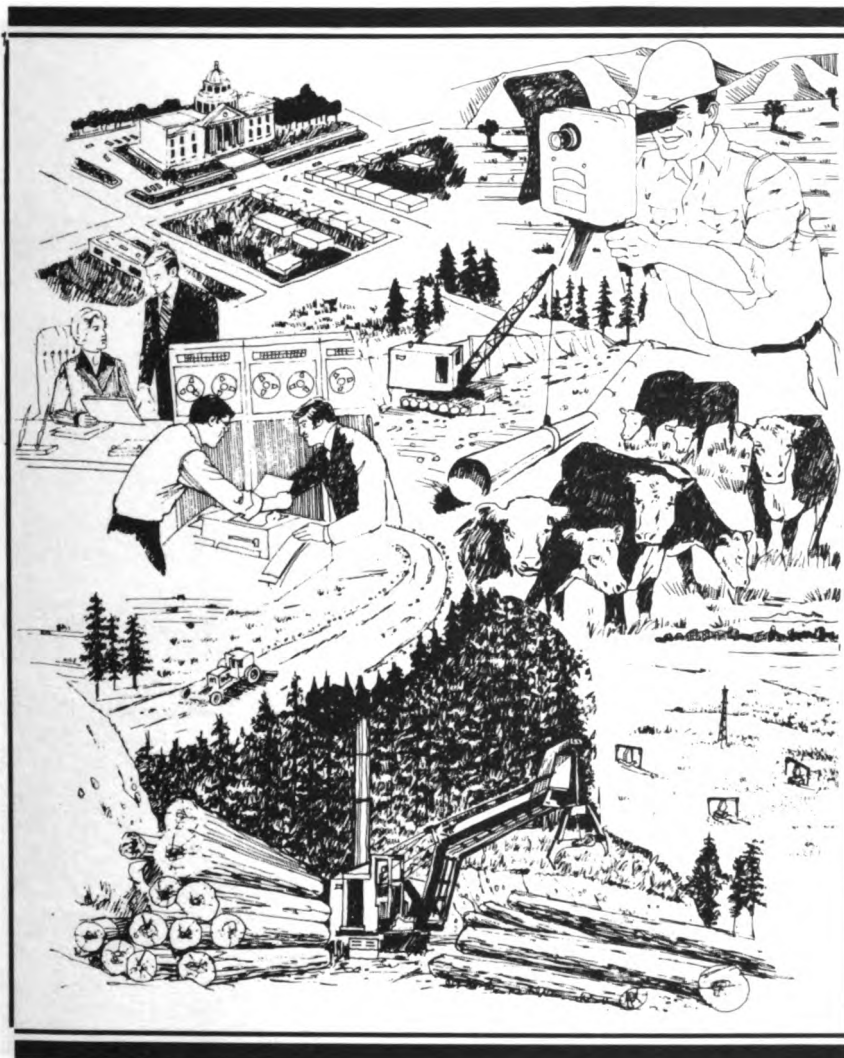
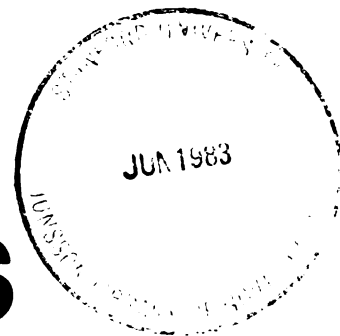
OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF THE INTERIOR
INT-415



DEPOSIT
MAR 18 1983
SHIPPED

✓ Managing the Nation's Public Lands



January 31, 1983

U.S. Department of the Interior
Bureau of Land Management

Managing the Nation's Public Lands

**A Program Report Prepared Pursuant to
Requirements of the Federal Land Policy
and Management Act of 1976**

January 31, 1983

**U.S. Department of the Interior
Bureau of Land Management**

MANAGING THE NATION'S PUBLIC LANDS

TABLE OF CONTENTS

I. Program Overview.....	5	6. Wilderness Review Program.....	54
II. Revenues and Receipts.....	15	7. Recreation Management.....	55
III. State and Local Shares.....	19	8. Natural History Resource Management.....	56
IV. BLM Operating Programs.....	23	9. Cultural Resource Management.....	58
A. Resource Management Planning.....	29	D. Renewable Resources.....	61
B. Energy and Minerals.....	31	1. Livestock Grazing Management.....	63
1. Oil and Gas Leasing.....	33	2. Range Improvement.....	64
2. Energy on the OCS.....	35	3. Soil, Water and Air.....	65
3. Coal.....	36	4. Forest Management.....	67
4. Oil Shale Leasing.....	38	5. Wildlife.....	69
5. Tar Sands.....	39	6. Wild Horses and Burros.....	70
6. Geothermal Leasing.....	40	E. Support Services.....	73
7. Nonenergy Minerals.....	41	1. Engineering Services.....	75
C. Land Programs.....	45	2. General Administration.....	77
1. Lands.....	47	3. Evaluation/Audits.....	79
2. Asset Management.....	48	4. Law Enforcement.....	80
3. Rights-of-Way.....	49	5. Fire Management.....	82
4. Withdrawal Review Program.....	51	6. Data Management.....	84
5. Alaska Lands Program.....	52	7. Cadastral Survey.....	86
		8. Volunteers.....	88
		V. Appendix - BLM Organizational Structure.....	89



I. Program Overview

I. PROGRAM OVERVIEW

A. GOALS AND ACCOMPLISHMENTS

The Bureau of Land Management manages some 300 million acres of public lands and related resources located primarily in the West and Alaska. Orderly development and wise use of these resources will benefit all Americans, now and in the future. Sound management requires the striking of a balance between the many uses of the public lands, and the Bureau is committed to achieving this balanced use, emphasizing energy and mineral self sufficiency, streamlining policies and regulations, and improving our Good Neighbor Policy to develop a cooperative spirit in the West.

Major accomplishments in fiscal year 1982 toward meeting these goals were:

- The BLM backlog of noncompetitive oil and gas lease applications was reduced by the end of FY 82 to only 961 cases. BLM began the year with a backlog of 13,400 applications that were 6 months old or more with an additional 21,404 applications becoming 6 months old during the year.
- Oil and gas leasing was initiated in the National Petroleum Reserve in Alaska in FY 82. Thirty-seven leases covering more than 905,000 acres were issued as a result of the first two competitive lease sales. Total high bonus revenues from these leases were \$66,887,504.
- Revenues from the Federal simultaneous oil and gas leasing program in FY 82 climbed to \$99,811,450 from \$43,800,00 in FY 81. The increase in revenues is largely attributable to the filing fee increase to \$75 that became effective in February 1982.
- Noncompetitive oil and gas leasing in the non-North Slope portions of Alaska public lands resumed in FY 82 with the opening by Public Land Order of 276,480 acres in the Minchumina area and 2,969,659 acres in the Denali-Tielkel area to the mineral leasing laws. Eighty-three leases covering 268,055 acres were issued in Minchumina with total year end revenues of nearly \$280,000. Also, 369 lease offers covering about 1 million acres in Denali-Tielkel were received for processing. This leasing activity is the first in nearly 15 years in Alaska.
- Revenues from Outer Continental Shelf leasing totaled 7 billion in FY 82.
- State and county governments received 653.7 million from revenues produced from public lands.
- County governments received an additional 95.4 million from appropriated funds.
- Revenues from geothermal lease sales climbed to more than \$23.5 million in FY 82, from \$7.2 million in FY 81 and only \$1.4 million in FY 80. In addition, the eight-year backlog of noncompetitive geothermal lease applications for BLM-administered lands was eliminated. Of particular importance, the number of geothermal leases in California, the State with the highest geothermal energy potential, more than quintupled in FY 82.
- In FY 82 a total of 38 coal leases covering about 83,500 acres were issued. Recoverable coal reserves in these leases are estimated at 1.4 billion tons.
- Final amendments to the Federal coal management rules became effective August 30, 1982, making the leasing process more efficient.
- Major revisions were proposed in all nonenergy mineral programs. These revisions would clarify the regulations, streamline the processing of applications for permits and leases, and reduce the regulatory requirements imposed upon applicants. As a result, nonenergy minerals will become more readily available for exploration and development.
- Career options for employees in the energy and mineral programs were significantly increased with the reclassification of management positions from the 401 series (biological) to the 301 series (general). This opened positions such as Area and District Manager to persons in the physical sciences such as geologists.
- Almost 20,000 acres were conveyed to state and local governments under Secretary Watt's Good Neighbor Program. At the end of FY 82, 472 applications involving 187,415 acres remained to be processed by BLM.
- 274 Public Land Orders were issued revoking withdrawals on 7.2 million acres. Some 1.5 million acres were opened to mineral leasing and 4.6 million acres opened to mining location.
- BLM exchanged 95,421 acres for state or private lands. In FY 81 71,900 acres were exchanged.
- 80,000 acres were transferred to the lower 48 western states under state indemnity selection rights. The remaining entitlement to be transferred is 565,000 acres.
- The Bureau identified more than 2.7 million acres as potentially suitable for disposal under the Asset Management Initiative.

- BLM right-of-way regulations were simplified and expedited, reducing the cost to both the government and the public. A BLM Right-of-Way Manual was developed to implement these regulations.
- There was a significant increase in right-of-way grants to facilitate energy mineral development. A total of 5,066 rights-of-way were granted in FY 82.
- BLM opened more than 417,000 acres in Alaska to occupancy leasing and disposal under FLPMA. 2,376,000 acres were opened to mining (the first since 1974).
- BLM conveyed more than 13.3 million acres to the State of Alaska, bringing the total to 67.4 million acres, about 65 percent of its entitlement.
- BLM issued decisions to convey more than 7 million acres to Alaska Native Corporations, bringing the total to 30 million acres, about 68 percent of their entitlement. 22.3 million acres have been conveyed to date.
- BLM's wilderness study policy was substantially revised, reducing cost and returning lands determined unsuitable for wilderness to multiple use as soon as possible.
- A final grazing management policy was issued in FY 82. This policy places federal resource management investments where they are most needed. The result will be more effective and efficient management while meeting the objective of protecting and improving rangeland condition and productivity.
- A final renewable resources monitoring policy statement, issued on April 16, 1982, provides direction for the coordinated planning and implementation of monitoring studies.
- Final amendments to the grazing regulations were published in the *Federal Register* September 21, 1982. These amendments simplified the existing regulations as well as incorporated changes required by the final grazing management policy.
- More than 9,300 horses and burros were removed from the public lands in FY 82. Approximately 7,200 of those animals were placed in private maintenance.
- To make the Adopt-A-Horse Program more self sustaining, BLM implemented a fee increase to \$200 for a wild horse and \$75 for a burro plus transportation costs. This transferred more of the costs to individuals benefiting from the program.
- More than 1.2 billion board feet of timber were sold in FY 82 for 105 million dollars, and re-

ceipts from actual timber harvests were \$87.4 million.

Another major accomplishment of the Bureau was the installation of a Management by Objectives (MBO) system throughout the Bureau. The system is designed to achieve sound management of the Nation's public resources with the appropriate environmental standards. Plans call for automation of the entire system by February 1983. MBO gives Bureau managers tools that have not existed before. The most important Bureau programs and tasks are tracked with completion and target dates assigned to the responsible Bureau official. The Secretary has been impressed with the Bureau's system. He meets monthly with top Bureau managers to review progress toward meeting the Bureau's highest priority commitments.

These accomplishments point to a balanced natural resources philosophy, one the Bureau intends to follow under this Administration. The results are already apparent and they will be even more discernible in the future. The Bureau is committed to becoming a better public landlord and trustee over the resources it manages for the people of this Nation.

B. THE RESOURCES MANAGED BY THE BUREAU

The Bureau of Land Management (BLM) is responsible for achieving balanced and effective multiple use management of publicly owned land. These lands include 175 million acres in 11 western states and 77 million acres in Alaska. In addition, about 58 million acres in Alaska are being managed by BLM pending transfer to the Natives and the State. BLM also manages approximately 422 million acres of Federally owned subsurface rights throughout the Nation underlying lands that are administered by other agencies or are privately owned. BLM also administered oil and gas leasing on the 1.1 billion acres of the Outer Continental Shelf (OCS) until that function was consolidated into the Minerals Management Service, created in May 1982.

Throughout the last century, to raise revenues and to encourage development of the West, the Federal Government sold or granted vast tracts of public domain land to homesteaders, towns, states, railroads and other private companies. Most of these public domain lands had been acquired by the Federal Government in the course of our national expansion. The Federal Government also reserved millions of additional acres for such uses as National Parks and Forests, wildlife refuges, and defense installations. The lands that BLM currently manages are lands which, for one reason or another, were

not transferred to private ownership or other Federal agencies.

The public lands managed by BLM in the western states and Alaska are now some of America's last wide-open spaces. National attention has turned to the rich resources of the public lands as the Nation seeks to meet its growing needs for energy, food, timber, minerals, water, wildlife, and recreation. This attention is long overdue and, not surprisingly, has generated increased interest over how to manage and use public land resources. The facts cited below indicate that the stakes are high and continue to grow.

- The onshore public lands provide about 4.5 percent of domestic oil production and about 5 percent of domestic natural gas production.
- Half of the Nation's coal reserves are in the West, and as much as 60 percent of that coal is owned by the Federal Government. BLM also administers substantial eastern coal reserves, the largest portion being in Alabama.
- More than 55 million acres of public land are prospective sources of geothermal energy. In addition, approximately 2 million acres have been identified as known geothermal resource areas.
- Some 35 percent of the Nation's uranium reserves are found on public land in the Wyoming basin and on the Colorado plateau.
- About 80 percent of the Nation's oil shale, the largest known reserve in the free world, lies under public lands, mostly in Colorado and Utah.
- The eleven major tar sand sites occur on public lands in Utah, and are estimated to contain almost 2 billion barrels of recoverable oil.
- The public lands contain an enormous storehouse of the Nation's non-energy mineral deposits, including some of the world class deposits of molybdenum, phosphate, and potash.
- More than 22,000 livestock operators graze about 5.5 million head of domestic livestock on the public lands. Approximately 11 million animal unit months of forage were harvested from these lands in 1982.
- About 1.2 billion board feet of timber, are harvested from the public lands in an average year.
- The public made an estimated 100 million visits last year to hundreds of unique recreational areas on the public lands. These areas include 14 Wild and Scenic Rivers, 17 National Trails, and 36 Outstanding Natural Areas. In addition, 42 National Natural Landmarks and 28 Research Natural Areas have been designated on lands administered by BLM, and two areas

have been identified for possible inclusion in the Biosphere Reserves System.

- BLM has the Nation's largest cultural resource management responsibility. There are more than 200 archaeological and historical sites already listed on the National Register of Historic Places; 350 more are pending. Nearly 8,500 other sites or areas are potentially eligible for nomination, and inventories are annually identifying an additional 200-500 sites of major cultural significance.
- No single Federal or State agency manages more wildlife habitat than BLM. The public lands are home to one out of every five of the big game animals in the entire United States, including most of the caribou, brown and grizzly bears, desert bighorn sheep, moose, mule deer and antelope. BLM also manages 47 million acres of wetlands, 30 million acres of riparian habitat, 669,000 miles of perennial streams, and nearly 5 million surface acres of lakes and reservoirs. These lands contain more than 90,000 miles of streams that contain trout, salmon, and other sport fish.

The magnitude and value of these resources, along with the high potential for conflicting demands and uses, make BLM issues some of the most pressing domestic resource policy issues facing the Nation. BLM is involved in many high-visibility issues: offshore and onshore oil and gas development, energy facility siting and transcontinental pipelines, coal development, synfuels, nuclear and other hazardous waste disposal, timber production, the availability of water and land for urban development, the disappearance of the Nation's open spaces, and many others.

In addition to providing energy, food, mineral, timber, wildlife, and cultural resources, the public lands provide revenues to the Federal and State treasuries. An estimated 7.9 billion was collected in FY 82 and turned over to the Federal Treasury. Portions of this money were paid to state and local governments. These revenues were paid by users of the public lands and the OCS in the form of grazing fees; energy and minerals lease sale receipts, filing fees, royalties, and rental payments; timber sale payments; recreation and firewood permit fees, etc. (More detailed information on these revenues and their distribution is provided in Parts II and III of this report.)

C. THE HISTORY OF BLM'S MISSION

In 1785 the Surveyor General began the first land survey under the United States rectangular survey

system, and the first sale of public lands was held in New York City in 1787. Similar sales were conducted by the Board of Treasury for 25 years. To meet demands of pioneers and frontiersmen, Congress established the first land offices in Ohio in 1800, and followed up by establishing The General Land Office in 1812. In 1849, The General Land Office became part of the Department of the Interior.

The deteriorating condition of the public lands after the turn of the 20th century, underscored by the drought and depression of the 1930's, resulted in the passage of the Taylor Grazing Act in 1934. The U.S. Grazing Service made the first effort to actively manage the unreserved public lands. The Act focused primarily on grazing management, rather than on a broader spectrum of uses, still reflecting perspectives that would change following World War II. The Act perpetuated the assumption that the public lands would eventually be transferred to private ownership.

This assumption was reinforced in 1946 when the Bureau of Land Management was formed, through the merger of the General Land Office and the Grazing Service, to serve as custodial manager of the public lands. BLM's management authority was scattered among a myriad of existing laws involving mining and mineral leasing, grazing, timber, material sales, public land sales, etc. The scattering of authority made BLM's operations complex, inefficient, often times *ad hoc*, and reflected a lack of clarity about BLM's mission. Combined with the assumption that the land would eventually be disposed of, this confusion had the effect of limiting the extent to which Congress was willing to provide funding for investments that would improve the productivity of the public lands.

In the Classification and Multiple Use Act of 1964, Congress established a temporary process for reviewing the public lands in Federal ownership to determine which should be classified as suitable for disposal, and which contained values that would make them best suited for retention in Federal ownership. In the same year, Congress created the Public Land Law Review Commission to study the issues of public land management and recommend needed changes in policy and authorities.

The Commission's report was referred to frequently in the development of what became the Federal Land Policy and Management Act (FLPMA) of 1976. The first version of this comprehensive public land law was introduced a year after the release of the report in 1970. After consideration by three Congresses, the Act reflects changing public priorities that had evolved over a decade.

FLPMA clearly establishes the national policy that the public lands shall be retained in Federal owner-

ship and managed for all Americans under the principles of multiple use and sustained yield. Lands are disposed of only if, as a result of land use planning procedures provided for in the Act, it is determined that disposal of a particular parcel will better serve the national interest. The Act mandates that decisions on the use of the lands be based on inventories of the resource base and on the results of considering alternative levels and types of use. Furthermore, the decisions are to be made with the full participation of the public, and a careful balancing of the interests of competing users.

D. CURRENT RESOURCE DEMANDS AND MANAGEMENT EXPECTATIONS

The creation of a comprehensive legislative mandate (FLPMA) came at a time when demands on the resources of the public lands were increasing rapidly. The growing scarcity of basic commodities, a gradual shift in the demographic center of the Nation to the West and South, increasing national affluence, more leisure time, and an appreciation of environmental values have all intensified pressures on the public lands. These uses are for such sometimes competing purposes as energy production, wildlife habitat, urban growth, wilderness preservation, and recreation, as well as the traditional uses such as livestock grazing, timber production, and mining.

1. What the Public Wants from BLM

The Bureau of Land Management continues to ask the public to express their needs from and their expectations for the public lands. BLM has contacted Governors, State officials, State and regional interest groups, county and local officials and individuals asking them to identify both public land needs and problems with public and management and to suggest opportunities and priorities for the 1980's.

Improving the productivity of the public lands is often identified as a high priority, with particular emphasis on increased energy production. The public also wants BLM to develop the public land resources (rangeland, forests, energy and minerals, etc.) with sensitivity to social, economic and environmental impacts.

Improving Bureau methods for protecting resource values threatened by changes in land use is an equally important goal. This can be achieved by identifying potential adverse impacts associated with changes in the use of public lands, and developing and implementing measures to manage and

protect threatened resource values such as wildlife, cultural or historic sites, and unique natural areas.

Through a multi-discipline planning process, BLM is providing timely decisions that carefully consider State and local concerns and priorities and include effective public participation. The Bureau has developed methods for resolving conflicting uses, policies and procedures which involve the public in the resolution of the potential impacts of alternative land uses. In addition, public land use decisions reflect the social and economic needs of communities and individuals.

2. Mandated Responsibilities

As interest in and demands on the resources of the public lands have increased, so too have Congressional, Judicial, and Executive mandates for more intensive management, improved protection, and expanded services. Many of these mandates have specific schedules and deadlines for completion. Recent notable legislative mandates include:

- a review of withdrawals of public land made prior to October 21, 1976 to be completed by 1991;
- offer oil and gas leases in the National Petroleum Reserve in Alaska.
- a report to Congress by December 31, 1985 on the current grazing fee formula; and
- a review of potential wilderness areas to be completed by 1991.

Judicial mandates which have had the greatest impact on the Bureau's management responsibilities include:

- 144 Environmental Impact Statements (EISs) for livestock grazing on 170 million acres of public rangeland by 1988;
- EISs on forest management in Oregon and portions of California and Idaho by 1982; and
- public land designations as specifically open or closed to off-road vehicle use by the end of 1987.

Also, numerous recent Executive Orders have mandated a variety of special surveys and inventories of, for example, cultural, wildlife, wetlands, and endangered species resources prior to permitting the use of public land for development.

In order to comply with all these public demands and statutory requirements, it became imperative that BLM establish a flexible, integrated and responsive management system.

E. THE DEVELOPMENT OF A RESPONSIVE MANAGEMENT SYSTEM

The Bureau's budget and its functional organization are divided into programs designed to address one or more resource management objectives such as: energy and minerals management, range management, and forest management. When statutory, judicial, or administrative mandates change, BLM is often expected to rapidly shift available funding and personnel resources from program to program to adjust to new demands. In FY 82 the Administration emphasized increasing the efficiency and effectiveness of the Federal Government. BLM responded by streamlining many of its processes and systems, emphasizing the energy and mineral programs.

When it drafted FLPMA, Congress recognized that public land management is not simply a matter of administering a series of programs to address isolated problems and issues. The central reality of public land management stems from the nature of the lands themselves. BLM manages an intricate combination of natural resources—from coal to caribou, watershed to cultural resources—which interlock in a system wherein change in the use of one almost invariably means change in another. FLPMA mandates a management approach which reflects the sensitivity and complexity of these multiple uses. BLM has developed and implemented a management system to meet this FLPMA mandate and to guide its decisions and actions. There are four key elements in this system:

- a planning and decisionmaking process that provides a balance among the range of alternative uses and includes unprecedented public input, and directs BLM's implementation activities;
- implementing land use plans, particularly by making on-the-ground improvements that increase productivity and resource values on the public lands;
- monitoring resource conditions on the public lands, to determine the effectiveness of a wide range of activities; and
- service, operations and maintenance activities to meet the public's needs, and to provide cost effective protection of existing investments.

A key to understanding BLM's operation is to realize that a decision made to delay or expedite one BLM program, one resource, or one element of BLM's management system necessarily affects and involves other BLM programs and resources as well. Under existing statutes and Executive Orders, for example, BLM cannot issue a coal lease, approve a transmission route, or construct a range improvement project before impact assessment work

is completed. Similarly, BLM cannot designate a special environmental area or permit off-road vehicles to use a particular area without first considering how other resources in the area will be affected and what other uses might be made of the land.

BLM's management process is capable of efficiently, effectively, and fairly resolving many of the conflicting demands placed upon the public lands and of facilitating the development of needed resources while protecting other resource values from inadvertent damage or destruction. Recent appropriation requests have reflected a strong commitment to this balanced multiple use management approach.

F. BLM's BUDGET

1. Recent Trends FY 76 to FY 81

Between fiscal year 1976 and 1981 appropriations steadily increased, primarily due to three factors: 1) the increased value of public land resources and the corresponding increase in amounts of shared revenues paid to state and local governments; 2) the increased national emphasis on energy development; and 3) a more active management of the public lands in response to FLPMA.

The largest increase was, and continues to be, in appropriations that are simply passed through to state and local governments. Shared revenues (primarily receipts from mineral leasing) increased more than 150 percent between FY 76 and FY 81. The addition in FY 77 of an appropriation for Payments in Lieu of Taxes also added about \$100 million per year to BLM's appropriation.

BLM's operating budget almost doubled during this period. Energy and mineral management increased three-fold, and renewable resource management increased 2.5 times.

2. Funding Trends Since FY 81

Fiscal year 1981 marked the beginning of a new direction in the management and funding of BLM, with the operating budget being relatively stable. New management direction and an increased emphasis on fiscal restraint are reflected in the major objectives established by the Secretary for BLM. These objectives, which have guided program and budget decisions for FY 82 and FY 83 are:

- to develop and implement a policy for management of the public lands which encourages multiple use and local participation in the process before management and policy decisions are made;

- to expand opportunities for energy and mineral resource use of public lands through streamlining the leasing process and improving management of energy resources; and
- to enhance the Environmental Impact Statement (EIS) process to make it a cost effective and integral part of the decisionmaking process of the Department of the Interior and enhance the value of EISs to the public.

BLM's commitment to meeting these objectives and the need for fiscal restraint is reflected in both the FY 82 and FY 83 budget. For example, the FY 82 budget incorporated the following:

- Restraint in all Management of Lands and Resources activities with the general budget emphasis placed on high priority programs. An overall thrust of increasing or maintaining accomplishments through program efficiencies was also reflected.
- Emphasis on energy and minerals management activities. Energy leasing management was emphasized with a priority on eliminating the application backlog for oil, gas, and geothermal leases while maintaining environmental safeguards.
- Emphasis on responding to public and state government applications for land exchanges, state indemnity selections, cadastral survey priorities and other lands and realty casework.
- Adoption of new procedures and simplified processes to reduce costs and accelerate completion of withdrawal review, land use planning, wilderness review, and other tasks.
- Changes in policies to reduce Federal spending by transferring costs to others when it is appropriate (e.g., range maintenance costs).
- Speeding up decisionmaking and eliminating excessive costs of studies and inventories.

The FY 83 budget reflected further commitment to the above objectives through:

- Increasing funding to eliminate lease backlogs, operate a full scale leasing program outside the NPR-A, and establish a full scale oil shale program;
- increasing funding to expedite land conveyances, use authorizations and the processing of energy related rights-of-way;
- transferring the Outer Continental Shelf program to the Minerals Management Service to consolidate offshore minerals programs under one agency;

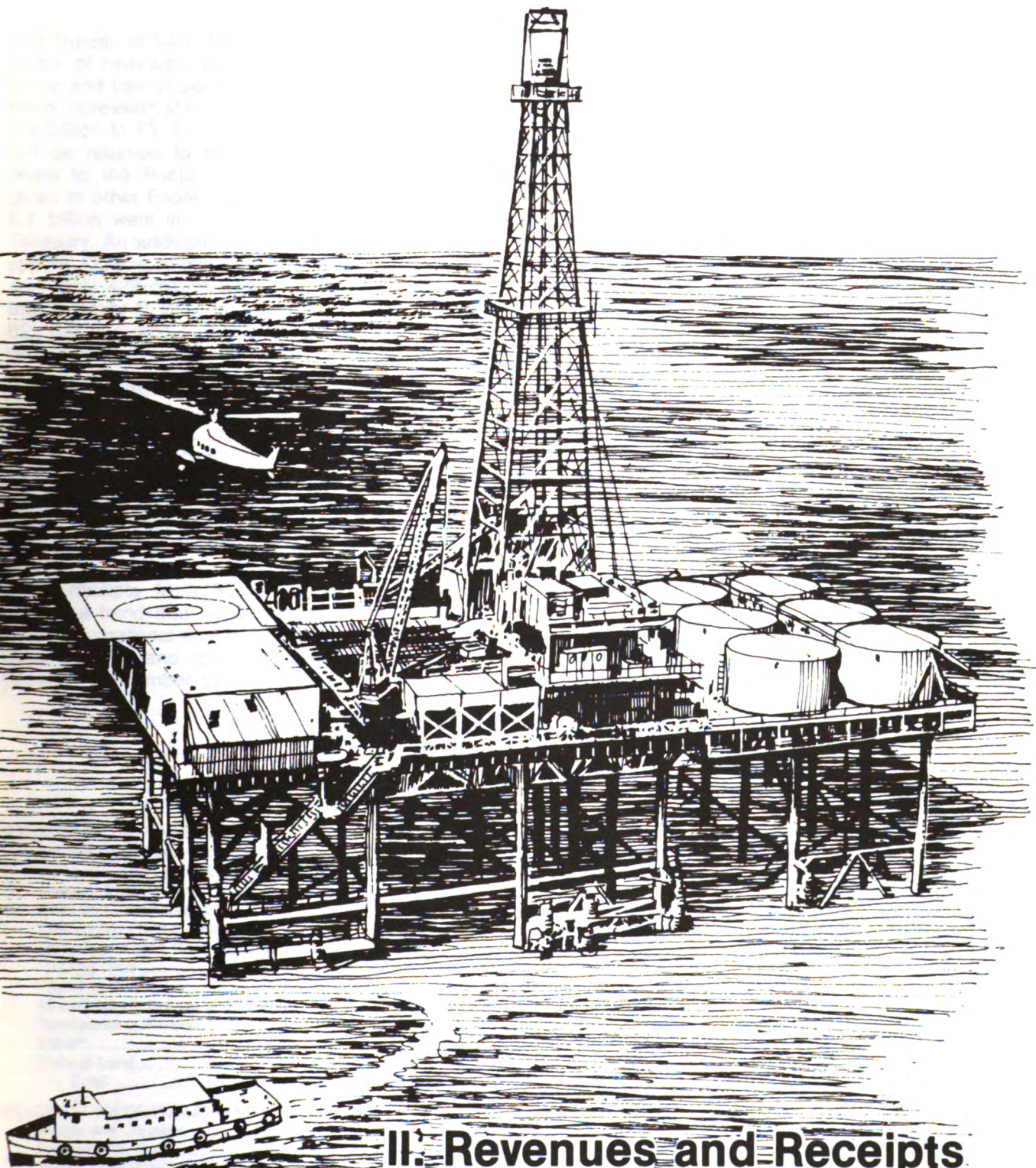
- consolidating onshore leasing management in the Bureau with the transfer of certain functions from the Minerals Management Service;
- targeting forestry funding to the most productive commercial forest lands;
- limiting mineral survey coverage and costs for wilderness suitability studies to only those areas found suitable for wilderness designation;
- streamlining the planning process to reduce the time required for plan preparation and increasing use of existing planning data;
- reducing the intensity of inventory work, streamlining the EIS process and activity planning while expanding on-the-ground monitoring in renewable resources management;
- decreasing the number of EIS's, inventories and technical investigations required in the coal program; and
- absorbing increases in uncontrollable General Administration costs by reducing personnel costs, resulting in no net increase in General Administration in FY 83.

3. Budget Development

The Bureau has also instituted other changes designed to increase efficiency and effectiveness, including:

- transfer of maintenance and engineering services costs to the Management of Lands and Resources appropriation and a single, reduced appropriation request made for BLM's capital improvement and land acquisition programs;
- the practice, begun in FY 81, of requesting a direct appropriation for the Oregon and California Grant Lands in place of the previous indefinite receipt limitation account; and
- transfer of costs to users when appropriate (e.g., range maintenance costs that should be borne by livestock operators).

In summary, BLM's FY 83 budget remains committed to fiscal restraint coupled with efficient and effective management of our national resources. Despite budgetary limitations, BLM will continue to emphasize active management of the Federal lands under its jurisdiction and will provide support for a strong and independent national economy through increased emphasis on energy development and continuing efforts to eliminate, reduce or streamline procedures.



II. Revenues and Receipts

II. REVENUES AND RECEIPTS

A. Receipts and Allocations

The Bureau of Land Management is a primary collector of revenues. Gross receipts from the sale, lease and use of public lands and resources have been increasing steadily, and totaled approximately 7.9 billion in FY 82. Of this amount, 653.7 million will be returned to the states, 487.5 million was given to the Reclamation fund, 35.7 million was given to other Federal agencies, and the remaining 6.7 billion went into the general fund of the U.S. Treasury. An additional 0.8 billion was deposited in special OCS accounts in the Treasury. By comparison, only 422 million was then appropriated from the Treasury to BLM for operating expenses in FY 82. This is a ratio of \$20 collected for every \$1 appropriated.

The development and use of the public lands and resources managed by BLM generate receipts from a variety of sources. Bonus bids and royalties from Outer Continental Shelf (OCS) leasing account for the vast majority of receipts, 6.3 billion or roughly 79 percent of total receipts in fiscal year 1982. Accelerating interest in energy and mineral exploration and development on public lands is strongly reflected in the increasing 1981, 1982, and projected 1983 receipts from BLM's mineral leasing programs; a trend that became most notable in 1973 when international energy supplies became increasingly unstable and costly. Although still significant, receipts from timber sales on the public lands have

recently decreased because of the depressed condition of the housing industry. Timber receipts were 87.4 million in FY 82. BLM also generates receipts from a variety of other sources, including sales of public lands and materials, fees and commissions, grazing, right-of-way leases, and permits.

Exclusive of the Offshore OCS Leasing Program, receipts from the development and use of public land resources were allotted in FY 82 under a variety of public-land-payment programs as follows:

- FLPMA increased the state's share of public land payments by amending the Mineral Leasing Act to raise the share of mineral leasing receipts returned to the states from 37.5 percent to 50 percent. FLPMA also stated that these funds could be used for any purpose a state legislature directs, with priority to be given to the state subdivisions that are socially or economically impacted by mineral development.
- In 1976, Congress passed the Payments in Lieu of Taxes (PILT) Act to authorize payments to local units of government containing Federally owned tax-exempt lands. These payments supplement revenue sharing funds and are made directly to local governments. BLM is responsible for processing PILT payments for Federal entitlement lands administered by BLM and six other Federal agencies. In 1982 BLM processed payments totaling about \$95.4 million.

Table 1 lists BLM receipts for 1981, 1982, and projections for 1983:

TABLE 1— BUREAU OF LAND MANAGEMENT RECEIPTS

	FY 1981	FY 1982	FY 1983 Estimated
STATEMENT OF PUBLIC LANDS RECEIPTS			
Mineral Leases and Permits	\$821,989,507	\$1,420,568,838	1,537,000,000
Sales of Public Lands & Materials	4,828,873	3,598,726	7,000,000
Sales of Public Timber	15,724,745	6,346,266	10,000,000
Fees and Commissions	43,830,722	4,427,619	5,400,000
O&C Lands (Timber Sales)	193,911,483	78,596,218	100,000,000
Coos Bay Wagon Road Lands (Timber Sales)	6,107,957	2,458,116	2,600,000
Grazing Fees	24,884,317	20,878,691	16,157,000
Rights-of-Way	587,600	1,299,440	1,499,000
Miscellaneous Leases and Permits	1,259,314	81,617,788	327,000
Nonoperating Revenue ¹	12,108,892	8,655,510	11,250,000
Other ²	359,182	512,855	4,000
Rent of Land	15,850,153	1,323,897	1,025,000
Total	\$1,141,442,745	\$1,630,283,964	\$1,692,262,000
ALLOCATIONS OF PUBLIC LANDS RECEIPTS			
States and Counties	482,745,815	653,708,484	650,908,000
Reclamation Fund	310,205,053	487,530,908	478,421,000
Indian Trust Fund	28,179	5,274	5,000
General Fund	348,463,698	489,039,298	562,928,000
Total	\$1,141,442,745	\$1,630,283,964	\$1,692,262,000

TABLE 1— BUREAU OF LAND MANAGEMENT RECEIPTS—Continued

	FY 1981	FY 1982	FY 1983 Estimated
STATEMENT OF OCS RECEIPTS			
Outer Continental Shelf	\$11,988,516,004	\$7,038,793,890	Transferred to MMS
ALLOCATIONS OF OCS RECEIPTS			
General Fund.....	\$10,137,982,282	\$6,249,619,997	
Special Treasury Account	1,850,533,722	789,173,893	
Total	\$11,988,516,004	\$7,038,793,890	

¹ Incidental receipts from fines, taxes, etc., which are unrelated to routine public land administration.

² Receipts from miscellaneous materials sales under the Materials Disposal Act.

B. Outer Continental Shelf Investments Programs

The Outer Continental Shelf Lands Act, as amended, authorizes the Secretary to invest certain revenues received from leasing lands on the Outer Continental Shelf (OCS) in interest-bearing accounts. These revenues are deposited into a special Treasury account until a final determination is made as to the rights to these revenues. Interest is earned on these funds through investments in U.S. Treasury Securities. There are three situations when revenues are deposited into the special Treasury account (the monies are then invested in U.S. Treasury Bills):

1. Revenues attributable to those portions of a tract with pools underlying both OCS and submerged lands subject to State jurisdiction are deposited in the special account until the Secretary and the State Governor agree on the distribution of the revenues. If an agreement cannot be reached,

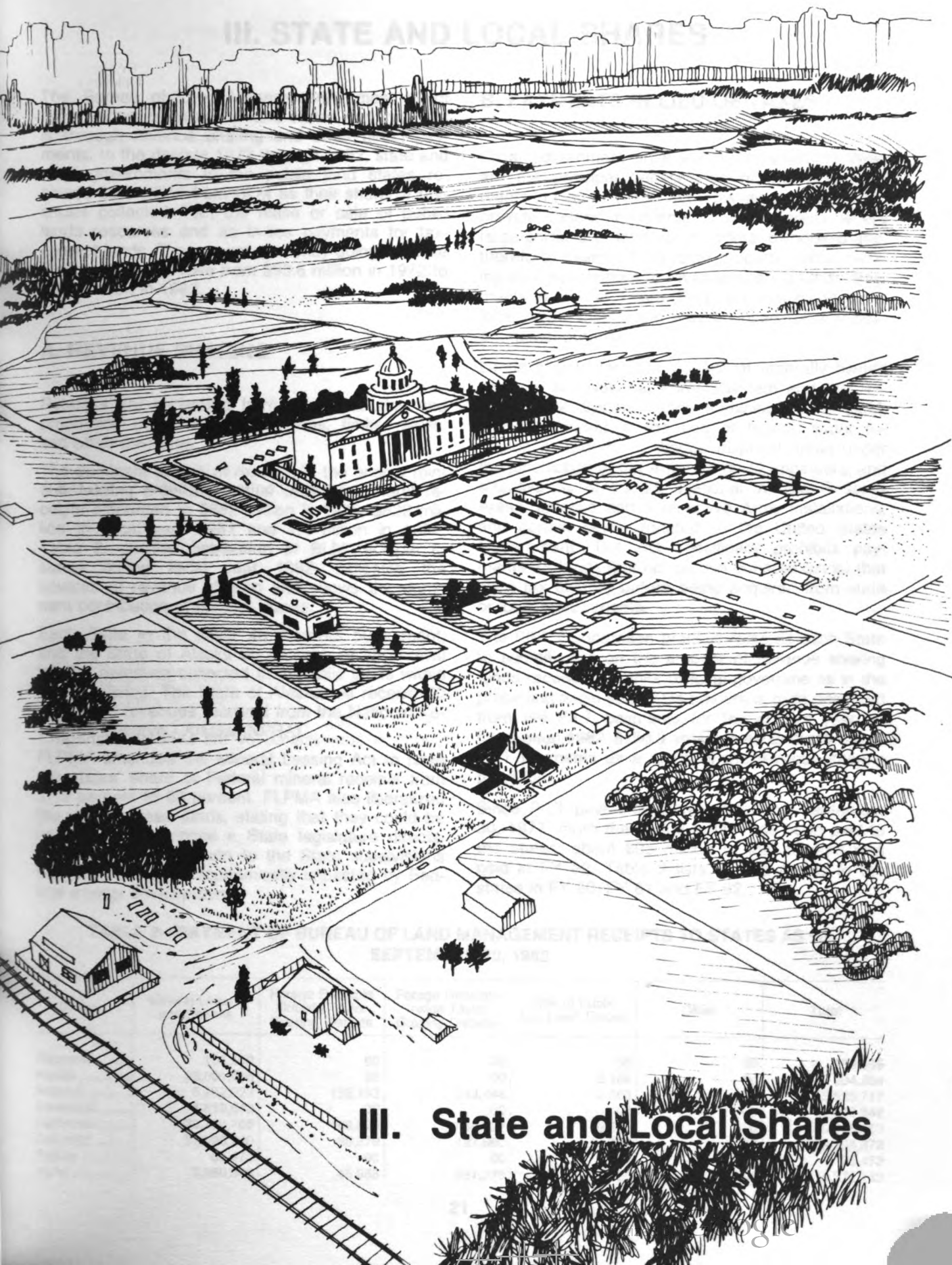
these funds are to be distributed in accordance with a determination to be made by a U.S. District Court.

2. Cash bids received on tracts to be leased are deposited in the special account when there is a delay in the determination to accept or reject the bids.

3. Where there is a controversy between the U.S. and a State over the ownership or jurisdiction of lands being leased, the affected revenues are deposited in the special Treasury account until an agreement is reached.

Cash receipts totaling \$0.8 billion were deposited in the special Treasury account in FY 82.

As of September 30, 1982, revenues placed in the special account totaled \$4.7 billion. Of that amount 1 billion represents interest earned on investments. A total of \$498 million in interest is attributable to fiscal year 1982. Effective October 1, 1982, this program is administered by the Minerals Management Service.



III. State and Local Shares

III. STATE AND LOCAL SHARES

The Bureau of Land Management's most direct fiscal impact upon public land states and localities is through revenue sharing and other direct payments. In the decade 1972 through 1982, state and local governments in the public land states received \$3.2 billion from BLM as their share of revenues collected from the lease or sale of public lands resources and as in-lieu payments for tax-exempt lands. The amount of money going to these States each year rose from \$93.6 million in 1972 to \$653 million in 1982.

A. REVENUE SHARING

Receipts are generated from mineral leasing and production (royalties), grazing fees, timber sales, and other user fees.

The dominant source of revenue is the energy mineral leasing program. Actual onshore mineral receipts amounted to \$682 million in 1980, \$822 million in fiscal year 1981 and 1.4 billion in 1982. Table 2, on the distribution of BLM receipts to states during fiscal year 1982, indicates the sources of revenue sharing and shows the dominant contribution of mineral leases.

Each State in the lower 48 receives 50 percent, and the State of Alaska 90 percent, of all mineral leasing revenues collected from public lands within its boundaries. The State of Alaska will receive 50 percent of revenues received from the National Petroleum Reserve - Alaska (NPRA).

FLPMA amended the Mineral Leasing Act to raise the states' share of Federal mineral receipts from 37.5 percent to 50 percent. FLPMA also liberalized the use of these funds, stating that they could be used for any purpose a State legislature directs, with priority to be given to the State subdivisions that are socially or economically impacted by Federal energy development.

B. PAYMENTS IN LIEU OF TAXES

Local government units within states in the West are the principal beneficiaries of the 1976 Payments in Lieu of Taxes Act. This law was passed to provide federal payments to those areas where large portions of land are in federal ownership and, therefore, exempt from local property taxes. Serving as a supplement to revenue sharing funds, Payments in Lieu of Taxes (PILT) are made directly to local governments and may be used for any governmental purpose.

Lands eligible for PILT consist of federally owned lands in the National Forest System and the National Park System, lands administered by BLM, lands dedicated to the use of federal water resource development, dredge disposal areas under the jurisdiction of the Army Corps of Engineers, and effective as of FY 79, National Wildlife Reserve Areas, inactive and semi-active Army installations, and certain lands donated to the United States Government. The Act specifically prohibits payments for lands (but not certain donated lands) that were tax exempt before being acquired from state or local governments.

The PILT computation process requires each State to submit data on the amount of revenue sharing funds received by units of local governments in the preceding fiscal year. This amount is then deducted from the PILT payments for the current year. In fiscal year 1982 \$156.9 million was deducted from PILT payments as a result of the revenue sharing provision.

Since PILT payments were started on September 30, 1977, more than \$609 million has been paid to the states; about \$95 million of that amount was paid in FY 82. Table 3 lists PILT payments to the states in FY 80, FY 81 and FY 82.

TABLE 2—PAYMENT OF BUREAU OF LAND MANAGEMENT RECEIPTS TO STATES AS OF SEPTEMBER 30, 1982

States	Mineral Leases and Permits	Forage Receipts Outside Taylor Grazing Districts	Forage Receipts Inside Taylor Grazing Districts	Sale of Public Land and Timber	Other	Total
Alabama.....	156,559	00	00	00	00	156,559
Alaska.....	23,001,066	00	00	3,198	00	23,004,264
Arizona.....	5,252,023	158,183	113,448	2,063	00	5,525,717
Arkansas.....	21,619,642	00	00	00	00	21,619,642
California.....	29,764,705	186,826	36,927	49,695	00	30,038,153
Colorado.....	37,995,290	68,279	127,660	13,743	00	38,204,972
Florida.....	65,473	00	00	00	00	65,473
Idaho.....	3,980,349	45,988	327,378	18,425	00	4,372,140

**TABLE 2—PAYMENT OF BUREAU OF LAND MANAGEMENT RECEIPTS TO STATES AS OF
SEPTEMBER 30, 1982—Continued**

States	Mineral Leases and Permits	Forage Receipts Outside Taylor Grazing Districts	Forage Receipts Inside Taylor Grazing Districts	Sale of Public Land and Timber	Other	Total
Kansas	644,292	144	00	00	00	644,436
Louisiana	750,594	00	00	00	00	750,594
Michigan	59,718	00	00	00	00	59,718
Mississippi	42,488	00	00	00	00	42,488
Montana	15,508,995	187,167	181,564	8,465	587,173	16,473,364
Nebraska	156,353	1,543	00	00	00	157,896
Nevada	11,466,047	43,417	535,284	64,658	00	12,109,406
New Mexico	151,703,796	273,201	386,830	9,551	17,743	152,391,121
North Dakota	4,606,899	10,014	00	00	00	4,616,913
Oklahoma	2,534,367	347	00	00	4,752	2,539,466
Oregon	1,495,405	60,399	269,796	*97,622,433	567,901	100,015,934
South Dakota	780,507	95,330	00	2,594	00	878,431
Utah	75,426,026	00	263,673	29,370	1,730	75,720,799
Washington	91,127	31,750	00	8,079	00	130,956
Wyoming	148,990,982	542,336	332,322	49,019	00	149,914,659
Total	536,092,703	1,704,924	2,574,882	97,881,293	1,179,299	639,433,101

*The majority of the \$97 million is for timber receipts

**TABLE 3—SUMMARY OF PAYMENTS IN LIEU OF
TAXES BY STATE**

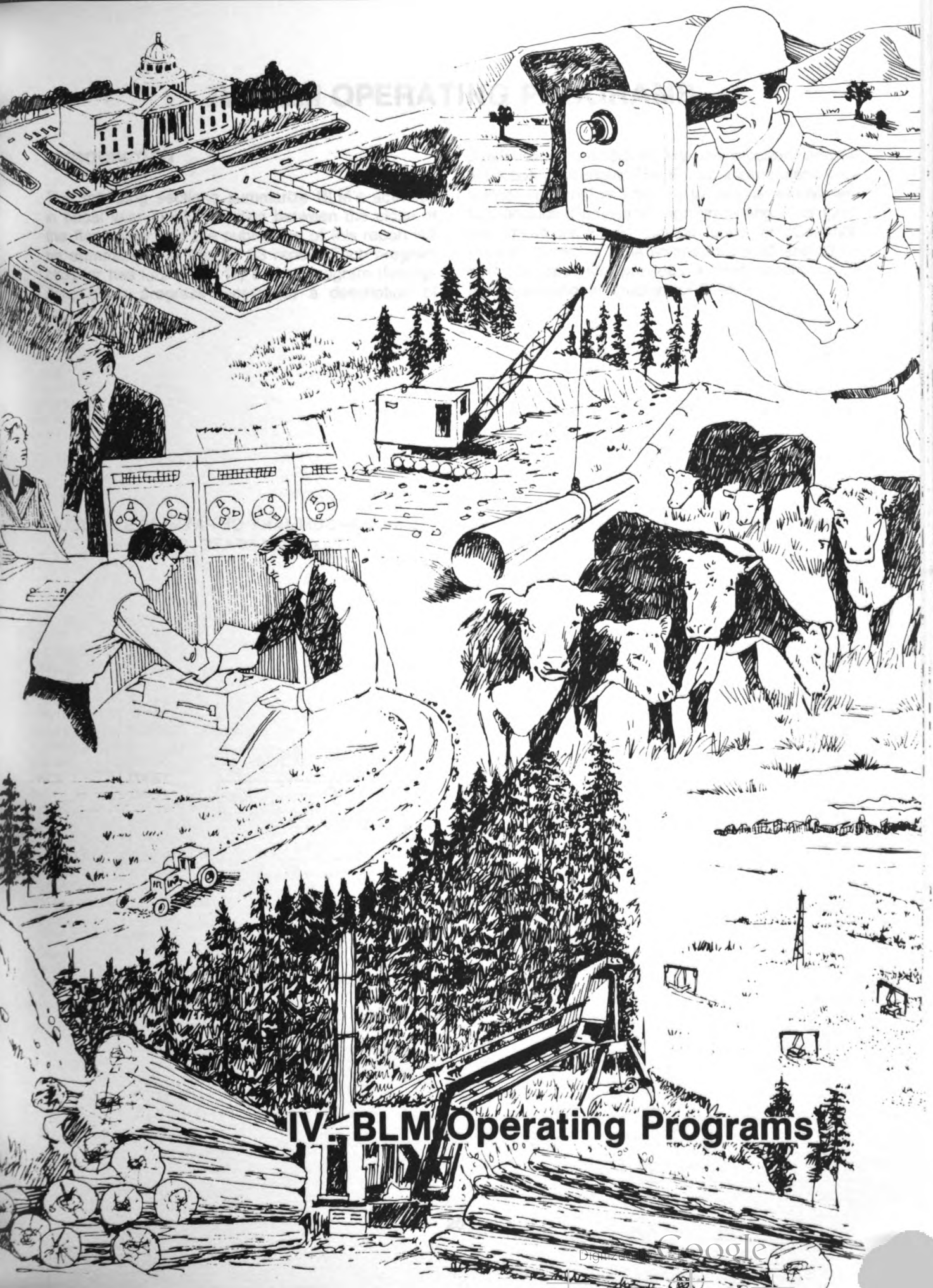
	FY 1981	FY 1982
ALABAMA	116,023	112,000
ALASKA	3,792,297	3,475,036
ARIZONA	7,882,400	^b 8,178,200
ARKANSAS	1,557,483	1,195,865
CALIFORNIA	11,330,719	10,860,626
COLORADO	7,264,862	6,608,463
CONNECTICUT	8,518	12,203
DELEWARE	4,919	4,520
DIST. OF COLUM.	5,112	5,600
FLORIDA	2,186,284	1,756,841
GEORGIA	838,006	713,699
GUAM	230	211
HAWAII	38,908	9,774
IDAHO	7,289,163	6,868,045
ILLINOIS	317,745	281,411
INDIANA	287,868	262,617
IOWA	128,041	117,595
KANSAS	365,066	331,418
KENTUCKY	702,701	659,544
LOUISIANA	139,104	160,458
MAINE	51,879	38,798
MARYLAND	152,026	77,748
MASSACHUSETTS	163,787	76,783
MICHIGAN	1,605,818	1,317,094
MINNESOTA	1,147,073	1,045,207
MISSISSIPPI	349,110	335,343
MISSOURI	750,249	527,873
MONTANA	7,698,377	7,213,567
NEBRASKA	329,860	270,000
NEVADA	5,525,704	5,069,148

**TABLE 3—SUMMARY OF PAYMENTS IN LIEU OF
TAXES BY STATE—Continued**

	FY 1981	FY 1982
NEW HAMPSHIRE	311,293	297,586
NEW JERSEY	168,089	62,789
NEW MEXICO	9,797,851	8,934,783
NEW YORK	157,707	149,526
NORTH CAROLINA	*1,737,002	1,153,918
NORTH DAKOTA	582,680	513,314
OHIO	431,182	431,078
OKLAHOMA	740,527	711,667
OREGON	2,778,579	2,531,671
PENNSYLVANIA	508,129	364,256
PUERTO RICO	13,900	2,597
RHODE ISLAND	1,497	0
SOUTH CAROLINA	113,187	102,690
SOUTH DAKOTA	1,627,377	1,613,128
TENNESSEE	601,223	525,563
TEXAS	1,457,015	1,362,537
UTAH	8,626,041	7,929,891
VERMONT	133,329	59,887
VIRGINIA	1,474,192	1,268,268
VIRGIN ISLANDS	25,149	19,255
WASHINGTON	1,405,130	1,594,873
WEST VIRGINIA	813,276	754,481
WISCONSIN	*765,800	543,490
WYOMING	678,826	6,973,505
TOTAL	\$103,978,313	\$95,482,034

*Includes \$560,587 paid from FY 79 funds.

^bIncludes \$488,280 paid from FY 80 funds.



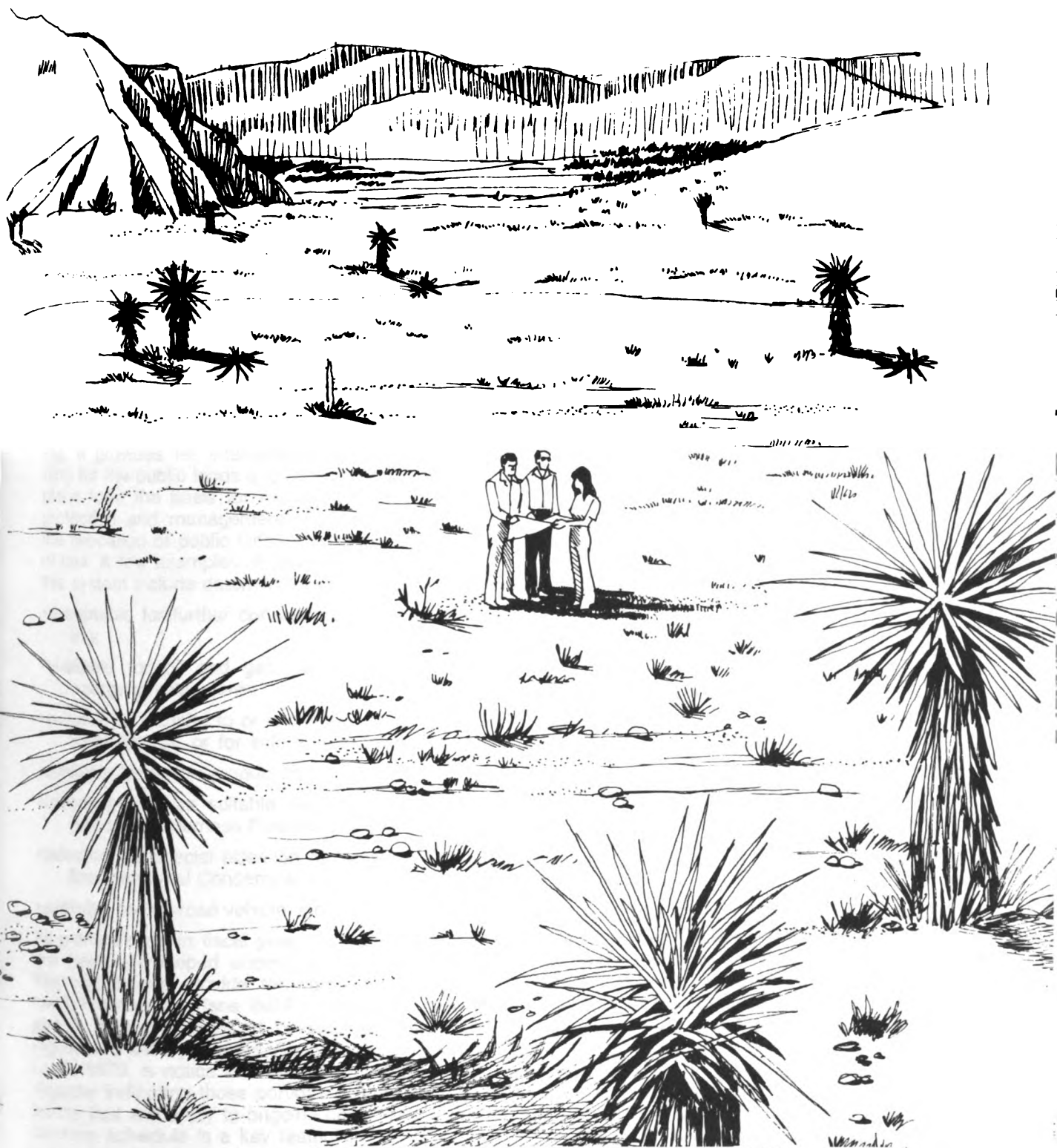
IV. BLM Operating Programs

IV. BLM OPERATING PROGRAMS

INTRODUCTION

The following sections summarize BLM's activities in fiscal year 1982. Activities between the close of the fiscal year and the publication of this report will be summarized in the FY 83 report. Each program chapter has four parts: (1) a brief program description; (2) a progress report; (3) a description of

public issues associated with the program; and (4) a section on budget. The FY 82 appropriation (see budget sections) is adjusted to include supplements (including pay) and reprogramming. The funding figures for FY 81 include funds for 'Common Program Services'; the figures for FY 82 and 83 do not. The appendix provides a brief description of the organizational structure of BLM.



A. Resource Management Planning

A. RESOURCE MANAGEMENT PLANNING

a) Program Description

The Federal Land Policy and Management Act (FLPMA) directed BLM to maintain an inventory of and develop land use plans for all public lands. Responding to these new requirements, BLM developed comprehensive resource management planning regulations which became effective on September 6, 1979. Since that time, BLM has begun to develop procedures and processes to implement those regulations and provide for an orderly transition from its old planning system (Management Framework Plans) to its new system (Resource Management Plans). Additionally, BLM and the Department are considering a number of streamlining changes in the planning regulations to reduce costs, shorten timeframes, and make the system more responsive.

The resource management planning process is the core of BLM's resource management decisionmaking. It provides for interdisciplinary resource planning for the public lands and their resources. These plans form the basis for making decisions on the protection and management of critical areas and the allocation of public lands among uses or levels of use. A few examples of decisions made through this system include determining which lands will be:

- acceptable for further consideration for coal leasing;
- available for oil and gas, oil shale, and other energy developments;
- suitable for transfer to or exchange with state and local entities, or for sale to the private sector;
- available for timber production;
- recommended as suitable or unsuitable for the National Wilderness Preservation System;
- selected for special attention as Areas of Critical Environmental Concern; and
- available for off-road vehicle use.

All plans begun in fiscal year 1981 and thereafter are being developed under the new regulations. The regulations provide for completing Management Framework Plans (MFPs) already underway and in different stages of development when the regulations were published. Accordingly, on December 3, 1979, a notice was published in the *Federal Register* indicating those portions of the new regulations that will apply to ongoing plans. The annual planning schedule is a key feature of the program and is designed to facilitate public participation. On March 15, 1982, the latest revised planning schedule was published in the *Federal Register* jointly with the Forest Service. Additionally, BLM intends

to make maximum use of the plan amendment process. Use of the amendment process with existing MFPs accelerates the response time of the planning process to new proposals, developments, or policies. This management tool will effectively meet program requirements such as energy development and asset management that need immediate attention.

b) Progress Report

BLM continues to focus on five pilot Resource Management Plan (RMP) efforts as a way to develop efficient operational procedures for implementing the planning regulations (effective September 6, 1979). Major effort will be devoted in FY 83 to identifying additional timesaving steps and efficiencies to incorporate into the planning process.

A draft amendment to the 1979 planning regulations was distributed in FY 82 for public review. This amendment would simplify and streamline the planning system by: 1) reducing costs and time necessary for planning, and 2) making the planning system more responsive to immediate energy and other requirements. It is anticipated that this amendment will be finalized in FY 83.

BLM also prepared a set of draft Interim Guidelines for Resource Management Planning. This guidance, to be issued in FY 83, is intended to assist field offices implement the regulations efficiently and effectively.

A comprehensive Communications and Training Program was launched in late FY 82 with the issuance in August of a *Reference Guide to Pilot RMP Experiences*. Reference Guides on six aspects of planning and environmental analysis, plus training packages for State Offices, will be distributed in FY 83.

In FY 82 a Social and Economic Program was established in the Planning Office to develop guidance leading to more socially responsive and economically efficient decisions. The two year Coal Social Effects Project was completed, resulting in a *Guide to Social Assessment*, a *Review of the Literature*, ten community studies, and a *Summary Research Report*. In FY 83 these analyses will be incorporated into the overall Social/Economic Program, applicable to all resource programs. A *Reference Guide to Social and Economic Techniques* was prepared in FY 82 and will be formally issued early in FY 83 as the second in the Reference Guide series. A *Multiple Use Questionnaire Package* was assembled and will help control the paper-

work and information burden on the public. It will be issued as a Reference Guide in late FY 83.

c) Issues

The primary issue concerning the resource management planning process in FY 82 was improvement of the planning regulations and the resource management process. The changes streamlined the planning process, making it more cost effective and responsive to management requirements.

Significant concern has been expressed over the need to integrate data and information collection and monitoring programs. The inventory coordination system was expanded to alleviate this concern.

d) Budget and Performance Analysis

l) Administrative Responsibility

Program Administrator: Deputy Director, Lands and Renewable Resources
Field Administrators: State Directors

2) Funding

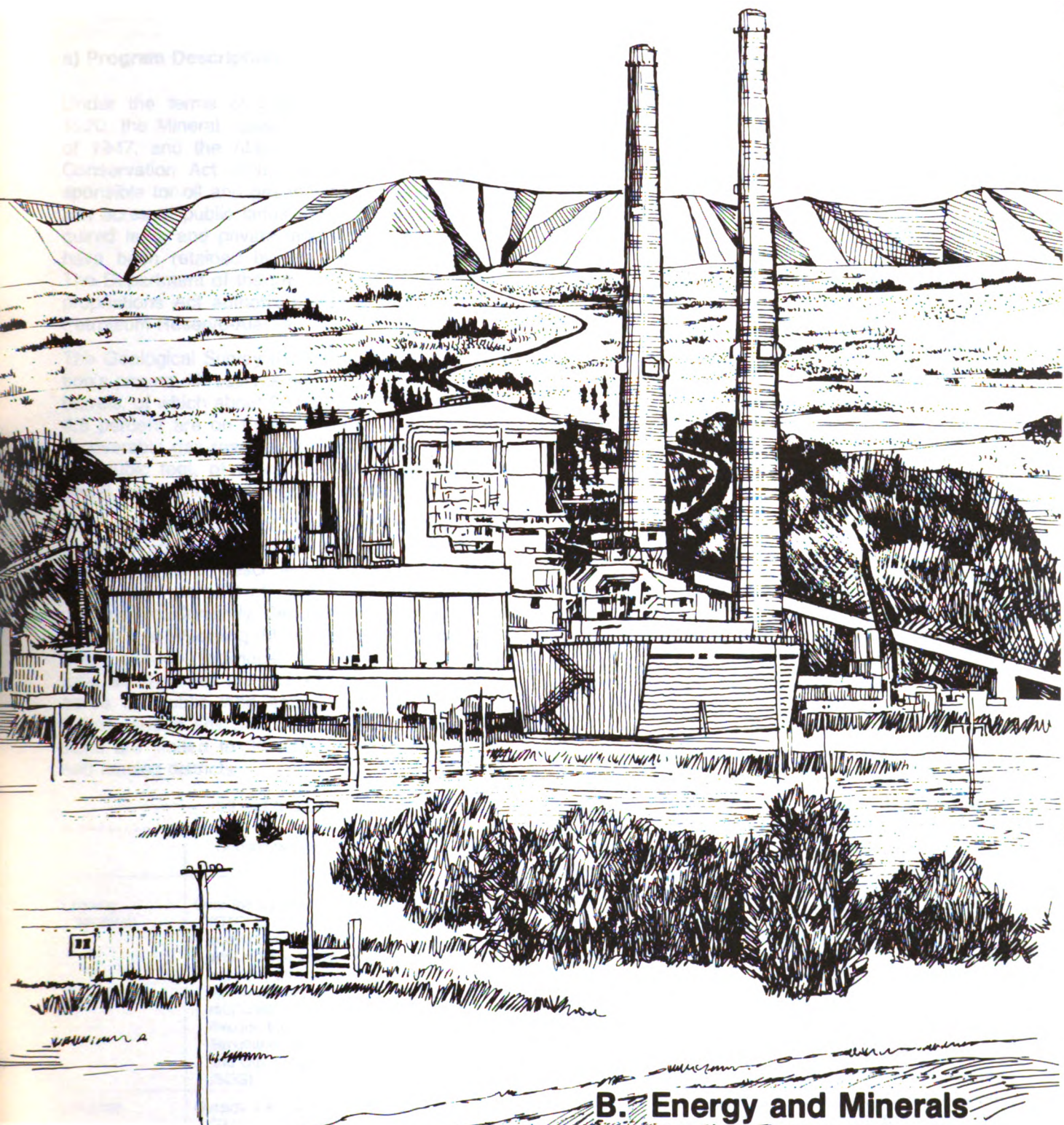
	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (000s).....	16,000	8,661	8,660

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (000s).....	14,897	8,278	8,660
Work Years	430	244	208

4) Performance

Work Units (by number completed)	1981 Actual	1982 Actual	1983 Planned
Resource Management Plans	0	0	10
Issue Identification/Planning Criteria	11	22	15
Management Situation Analysis.....	3	16	21
Alternatives Developed.....	1	2	23
Transition Management Framework Plans	33	36	20
Unit Resource Analysis.....	-	14	-
Socioeconomic Profiles	-	5	-
Planning Area Analysis	-	9	-
Plan Amendments	-	5	35
InteragencyPlans	-	6	1



B. Energy and Minerals

B. ENERGY AND MINERALS

B.1. Oil and Gas Leasing

a) Program Description

Under the terms of the Mineral Leasing Act of 1920, the Mineral Leasing Act for Acquired Lands of 1947, and the Alaska National Interest Lands Conservation Act (ANILCA) of 1980, BLM is responsible for oil and gas leasing on about 520 million acres of public lands and national forests, acquired land, and private land where mineral rights have been retained by the Federal Government. The Department of the Interior fiscal year 1981 Appropriations Act authorizes leasing in the National Petroleum Reserve-Alaska.

The Geological Survey (GS) estimates that the Nation's proven oil reserves amount to about 35 billion barrels, of which about 90 percent are onshore and 4.5 percent are on Federal lands. Total remaining recoverable gas reserves are estimated at 208 trillion cubic feet, of which 83 percent are onshore and 6.1 percent are on Federal lands.

The Mineral Leasing Act provides for both competitive and noncompetitive oil and gas leasing. The differences are described in the chart below. Roughly 97 percent of all Federal leasing is noncompetitive. Currently, the greatest activity in these leases is in Wyoming, Montana, New Mexico, Utah, and Colorado. Individual lessees are limited to a total acreage per state of 492,160 acres: 246,080 acres for public land and 246,080 acres for acquired land in any State, except Alaska where lessees are limited to 300,000 acres in each of the two leasing districts.

Oil and Gas Leasing

	Noncompetitive Leases	Competitive Leases
Leasing Method ¹	Over the counter (OTC) to the first qualified applicant. When these leases expire or otherwise terminate they are reoffered by lottery through the Simultaneous Oil and Gas Program (SOG).	Sealed bid issued on a bonus bid basis ²
Location	Outside a Known Geologic Structure (KGS) ³	Inside a Known Geologic Structure (KGS) ³

Oil and Gas Leasing—Continued

	Noncompetitive Leases	Competitive Leases
Size	Up to 10,240 acres	Up to 640 acres in Continental U.S.; up to 2,500 acres in non-North Slope Alaska; and up to 60,000 acres in NPR-A
Annual Rental	OTC: \$1 per acre. SOG: \$1 per acre first 5 years, \$3 per acre thereafter.	\$2 per acre in Continental U.S. and non-North Slope Alaska; \$3 per acre in NPR-A
Lease Period	Ten years, but can be extended when production is established ⁴	In NPR-A 10 years, elsewhere: five years, but can be extended when production is established ⁴
Royalties on Production	12.5 percent on oil and gas	12.5 to 25 percent on oil; 12.5 to 16.66 percent on gas; 16.66 percent in NPR-A FY 82 lease sales on oil and gas

¹Leasing in NPR-A is on a competitive basis only, and bidding systems are those allowed in the OCS Lands Act Amendments of 1978. ²A bonus is the per-acre cash amount an applicant bids on a lease tract. The lease is issued to the applicant with the highest bonus bid. ³Favorable Petroleum Geologic Province (FPGP) in non-North Slope Alaska. ⁴Can also be extended if other statutory conditions exist, such as drilling or reworking operations on the last day of the primary term of a lease exist.

b) Progress Report

Responding to Presidential initiatives, the Secretary adopted a program to reduce the backlog of oil and gas lease applications in FY 1982. In January 1982, more than 13,400 oil and gas lease applications six months old or older had accumulated. By the end of the fiscal year, the backlog was reduced to 961 applications. This backlog reduction was accomplished while processing a steady flow of more recently filed applications. The program is designed so that future lease application backlogs should not occur.

In cooperation with industry, a more rapid process of review and evaluation of applications for permits to drill for oil and gas on leased lands was developed in FY 82. This process, critical to oil and gas discovery and development on leased Federal lands, has been reduced from several months in extreme cases to a matter of a few days or a few

weeks. Process time is targeted at 30 days or less, and the majority of the cases are being processed in less than 30 days.

Leasing in Alaska was initiated in FY 82, for the first time in nearly 15 years. Over 3,246,000 acres of non-North Slope public lands were opened to over-the-counter noncompetitive lease offers. In the National Petroleum Reserve in Alaska, over 4 million acres were offered competitively in two lease sales. 37 leases containing over 905,000 acres were issued in the NPR-A in FY 82.

The issuance of noncompetitive oil and gas leases was streamlined by making the need for prelease environmental assessments unnecessary in most cases. To expedite reviews and reduce duplication of effort, prelease environmental analyses are to rely on relevant information in existing environmental reviews and land use plans to the maximum extent possible. Leases can then be issued without the onsite inspection usually necessary as a part of the environmental assessment process. Compliance with the National Environmental Policy Act will be accomplished primarily at the time plans for operation are received, rather than at the time the leases are issued. However, lease issuance may still be delayed if planning is incomplete.

By the end of FY 82, the simultaneous oil and gas leasing program was fully automated. All applications are now processed by the Wyoming State Office, and winners are determined by computer-generated random numbers.

The average lease size increased from 1,100 acres in 1980 to 2,158 acres in 1981; the average lease size was 2,055 acres in 1982. In FY 82, more than 21,000 leases were issued covering more than 42.5 million acres. This high rate of leasing was made possible, in part, by the backlog reduction priority initiative.

Additional program actions and initiatives during FY 82 include:

- Reduction of the lease application backlog by 90 percent through eliminating:
 1. qualifications statement submittal
 2. payments by guaranteed remittance
- 43 CFR 3000 and 3100—in the process of revising leasing regulations to conform with present administration's regulatory reform policies.
- Leasing Manual—completely revised leasing procedures manual, the first since 1952.
- Lease Forms—in the process of standardizing and combining various lease forms into one form.
- Lease stipulations—developed nationwide standard stipulations to eliminate variations of the same stipulations between States.

- Automation of land and minerals case record system—all BLM records/case files will be automated to ensure more efficient program management and efficient operations.
- Revenue enhancement—increased filing fees to \$75, and rentals on SOG to \$1/acre/year for first 5 years then \$3/acre/year.
- Contingent right stipulation—use of this stipulation to be at the option of lessee.
- Improved coordination among BLM, Forest Service, and MMS—the signing of a 3-agency memorandum of agreement streamlined the applications for permit to drill (APD) process.
- BLM and MMS hosted six oil and gas industry meetings—these promoted cooperation with industry and establish working relationships to resolve conflicts.
- Ended the moratorium on leasing on acquired military lands—this opened up those lands for leasing. Also working with the Department of Defense to establish geophysical permitting procedures.

c) Issues

Automation of the BLM records/case files was started in June 1982. When completed, the public will have instant access to case file information through the use of computer terminals. This automation will also facilitate BLM processing of oil and gas applications.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	16,901	17,559	20,113

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	16,557	17,5475	20,113
Work Years	496	585	608

4) Performance

	1981 Actual	1982 Actual	1983 Planned
Leases Issued.....	11,132	20,100	30,000
Assignments	38,694	44,029	40,700
Simultaneous Oil and Gas Lease Applications Proc- essed (in millions).....	*4.7	^b 1.9	^c 2.5

*\$10 filing fee

^b\$25 filing fee to January 1982, \$75 filing fee thereafter

^c\$75 filing fee

B.2. ENERGY ON THE OUTER CONTINENTAL SHELF

a) Program Description

The Outer Continental Shelf Lands Act of 1953, amended in 1978, established Federal jurisdiction over submerged lands on the continental shelf seaward of state boundaries. The Act charged the Secretary of the Interior with responsibility for administering mineral exploration and development on the Outer Continental Shelf (OCS). It also empowered the Secretary to formulate regulations so that provisions of the Act might be met.

Under the Act, BLM was designated as the administrative agency responsible for supervising leasing and the Geological Survey (GS) as the agency responsible for overseeing OCS exploration and development operations. On January 19, 1982, the Secretary of the Interior signed DOI Order 3071 creating the Minerals Management Board (MMB) and the Minerals Management Service (MMS). On May 10, the Secretary issued Amendment No. 1 to the Order, which consolidated all leasing and resource management for the OCS within MMS.

Estimated known reserves for oil on the OCS total about 10.3 percent of total domestic reserves and for gas the total is 19.8 percent of domestic reserves. OCS oil and gas production represents about 9 percent of total domestic oil produced and about 24 percent of total domestic natural gas produced. During the period 1953-81, 5.7 billion barrels of oil and 53.5 trillion cubic feet of gas were produced.

Between 1953 and the end of FY 82 OCS revenues to the Treasury totaled \$51.2 billion. In 1981, revenues from offshore oil and gas production represented 68 percent of all oil royalties and 84 percent of all gas royalties from Federal and Indian lands. These figures are expected to increase substantially as the offshore leasing program continues to expand, and as wells drilled offshore over the last 10 years continue to come into production.

To date, OCS production activity has occurred only in the Gulf of Mexico and off the coast of Southern California. It is expected that increased offshore oil and gas production in areas other than the Gulf of Mexico will rise dramatically in the coming decade, particularly offshore Alaska. The Department's recently approved 5-year offshore leasing program is expected to bear results well before the end of the century, with a commensurate rise in offshore royalty revenues.

b) Progress Report

The Final 5-year OCS Oil and Gas Leasing Program schedule was approved in July 1982. This proposal was transmitted to Congress, the coastal Governors, and the Attorney General, and was published July 21, 1982. The new program calls for 41 lease sales through June 1987. About 1 billion acres of OCS lands will be considered for leasing during this 5-year period; however, only a small percentage of the area is expected actually to be leased. The timing and location of the 41 lease sales were based on the careful balancing of environmental, coastal zone, and oil and gas resource values required by the OCS Lands Act.

	June 1980 Approved Program	July 1982 Approved Program
Total proposed sales.....	36	41
Reoffering sales	5	1
Proposed sales in:		
Alaska.....	10	16
California	4	4
Atlantic.....	6	8
Gulf of Mexico	11	12

The scope and emphasis of the new 5-year plan is significantly different from the past programs that allowed leasing of only 2 1/2 percent of the OCS over the past 28 years.

c) Issues

Foremost among the areas of contention is the proper timing of OCS lease sales in frontier areas. The issue of coastal zone consistency is a major concern of State officials. Other issues include sensitive biological resources, potential onshore effects of OCS development, the domestic economic climate, and the worldwide market as it affects the oil industry.

In January and September 1981, two Requests for Information were published in the *Federal Register* to poll industry's interest in hardrock minerals on the OCS. Responses focused mainly on two minerals—sand and gravel in the Arctic and manganese on the Blake Plateau.

Based on information received, a Secretarial option document on an OCS nonenergy mineral leasing program was developed and distributed to Departmental officials on December 24, 1981. This culminated a year-long effort led by BLM which included two separate opportunities for public and industry input and a multi-agency (Interior) development and analysis of options for decision.

Five suboptions for program development were proposed:

- 1) Develop a case-by-case program.
- 2) Develop a full-scale leasing schedule.
- 3) Develop a prototype leasing program.
- 4) Develop a government demonstration project.
- 5) Develop an initial effort to initiate leasing of manganese (Blake Plateau) and sand and gravel (Arctic).

In January 1982 the Secretary announced a policy of opening the OCS to hardrock mineral leasing on a case-by-case basis, with Arctic sand and gravel being the first planning sale, tentatively scheduled for mid-1983.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Minerals Resources

Field Administrators: Office Managers, OCS Offices in Anchorage, New York, New Orleans, and Los Angeles.

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	51,256	39,827	0

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	58,354	43,419	0
Work Years	311	234	0

4) Performance

Work Units	1981 Actual	1982 Actual
Studies	93	82
Final Environmental Statements	5	5
Lease Sales	7	5

B.3. COAL MANAGEMENT

a) Program Description

In the western United States, as much as 60 percent of the coal resource is owned by the Federal Government, principally in the States of Colorado, Montana, New Mexico, North Dakota, Utah and Wyoming. By the end of FY 82 a total of 612 leases had been issued, covering 926,813 acres of land containing an estimated 44.7 billion tons of in place reserves of Federal coal.

The current Federal coal management program utilizes a sequential process, emphasizing land use planning, surface owner consultation, and activity planning for leasing. Comprehensive land use planning identifies areas that are environmentally acceptable for leasing, eliminating from consideration those areas that contain unique site-specific resource values that are clearly more significant than the coal resource. In addition, qualified surface owners are consulted during land use planning to determine whether a significant number have a preference against surface mining. If so, the lands involved may be dropped from further consideration for coal leasing.

Activity planning follows completion of the land use plans and involves ranking and selecting a suffi-

cient number of potential coal leasing tracts within the coal region to meet the regional leasing levels. A Federal/State Regional Coal Team is established in each region and is responsible for ranking and selecting tracts for recommendation to the Secretary for leasing. The Secretary makes his decision after a regional environmental impact statement is completed and each affected state is consulted.

Strong input from industry, other Federal agencies, state and local governments and the public is an essential and integral element of the program. The program also includes "leasing by application" within Federal coal regions under emergency conditions (e.g., where Federal coal would otherwise be bypassed) and outside Federal coal regions where regional competitive leasing is impractical. Other aspects of the program include processing of pending preference right lease applications (PRLAs), processing coal exploration license applications, and action on coal exchanges.

b) Progress Report

Through the "leasing by application" component of the program, six lease sales were held and eight new leases containing approximately 154.5 million tons of recoverable reserves were issued during the fiscal year. Seven PRLAs covering an estimated 226 million tons of recoverable reserves were also issued.

Competitive lease sales were held during the fiscal year in four Federal coal regions: the Green River-Hams Fork; the Uinta-Southwestern Utah; and the Powder River Regions; and the Alabama Subregion of the Southern Appalachian Region.

- In October 1981 and April 1982, three tracts containing 175 million tons of recoverable reserves within the Green River-Hams Fork Region were offered for lease. High bids on the two Colorado and one Wyoming tract totaled \$24,956,352. This completed the sale of tracts selected for offering in the first round of leasing in the Green River-Hams Fork Region.
- Leases on two tracts containing 9.8 million tons of recoverable reserves in the Uinta-Southwestern Utah Region were sold in February and May 1982. High bids for the two Utah tracts totaled \$5,374,400.
- Completion of land use and activity planning in the Powder River Region culminated in the sale on April 28, 1982, of leases on six Montana and four Wyoming tracts containing 1,100 million tons of recoverable reserves. High bids for the tracts totaled \$43,489,434.
- Leases on seven tracts containing 8.3 million tons of recoverable reserves in the Alabama Subre-

gion of the Southern Appalachian Region were sold in December 1981 and September 1982. High bids for the tracts totaled \$870,719.

In addition, a draft EIS for the Fort Union Region was filed on August 3, 1982, and activity planning is continuing with sales scheduled in FY 83. Activity planning for the first round of sales in FY 83 in the San Juan River Region and the second round of sales in FY 84 in the Green River-Hams Fork, Uinta-Southwestern Utah and Powder River Regions and the Alabama Subregion continued or were initiated in FY 82.

c) Issues

In January 1981, the Secretary asked the user industries, state governments, and the public to identify regulations and procedures that hindered the responsible and efficient production of Federal resources to meet national needs. In April, based on a review of the responses, the Secretary ordered a comprehensive review of the Federal coal management program to streamline the existing rules and make the leasing process more efficient. Critical issues were identified and analyzed.

Among the issues to be decided by the Secretary were the following:

- the process for establishing leasing levels and the role of a regional coal team in that process;
- the solicitation of coal resource data and indication of leasing interest from industry;
- the composition and application of unsuitability criteria;
- the identification of areas for possible coal leasing; and
- the modification of the emergency leasing criteria.

Proposed rules reflecting the Secretary's decisions were published in December 1981. Final rules were published on July 30, 1982, and became effective on August 30, 1982.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrator: State Directors, especially Colorado, Montana, New Mexico, Utah, Wyoming, and Eastern States

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	29,300	17,947	15,927

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	26,706	16,981	15,927
Work Years	398	296	260

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Environmental Statements	3	3	7
Environmental Assessments	76	159	43
Trespass	9	19	5
Use Authorizations (Includes coal leases and exploration licenses)	236	177	170

B.4. OIL SHALE LEASING

a) Program Description

Efforts to develop oil shale have fluctuated greatly over the past 65 years. World War I prompted a flurry of claim staking under provisions of the Mining Law. During World War II, interest in oil shale resulted in the enactment of the Synthetic Liquid Fuels Act of 1944. Under the Act, the Bureau of Mines began developing extraction technology at Rifle, Colorado, and Laramie, Wyoming. Since then, private industry has taken over refinement and adaptation of technologies.

In 1974, BLM issued four oil shale leases - two in Utah and two in Colorado. The leases were issued as part of the Department's Oil Shale Prototype Leasing Program. One objective of this program was to issue a limited number of leases to stimulate development of commercial oil shale technology by private industry. Another objective was to develop the environmental safeguards, management expertise, and government supervision necessary in a future oil shale industry.

The 25,000-square mile Green River formation in northwestern Colorado, northeastern Utah, and

southwestern Wyoming contains oil shale with a total estimated potential of almost two trillion barrels of oil. Of the total area, 17,000 square miles are believed to have deposits 10 feet thick with an average yield of 25 or more gallons per ton, for an estimated 731 billion barrels of commercially developable shale oil. Approximately 83 percent of the formation is in Colorado, 9 percent in Utah, and 8 percent in Wyoming. Roughly 80 percent of this oil shale is on Federal land. The other 20 percent is in state or Indian ownership, or was transferred under the 1872 Mining Law which governed disposal of minerals on public land before 1920 when the Mineral Leasing Act provided new authority for leasing Federal oil shale lands. In the absence of commercial prospects, however, these lands were withdrawn from mineral leasing and other forms of disposal in 1930. Except for two special sales involving four tracts in 1974, there has been no leasing. In 1968, oil shale lands were withdrawn from location of metalliferous minerals (something not done by the 1930 withdrawal) under the Mining Law to preclude legal entanglements.

b) Progress Report

Public scoping and other initial phases of development for a long-term oil shale management program were conducted in FY 82.

Initial phase development of the two Colorado prototype leases has occurred. The first test retort was ignited October 8, 1980, on tract C-a. Mine shafts have been constructed on tract C-b. Detailed development plans for tracts U-a and U-b in Utah were jointly approved in March 1982. No prototype lease, however, has reached commercial production. BLM is considering supplementing the existing prototype program with up to two more leases in FY 83. A draft supplemental EIS was published in August 1982 on this action.

Several industry applications for Federal lands to support ancillary facilities for private oil shale projects are pending. BLM is now preparing several Environmental Impact Statements (EISs) to facilitate this development and accommodate all such requests to allow industry to meet its development schedules. For example, the Chevron oil shale operations in Colorado are scheduled for full production by 1991. The EIS work is underway for the Chevron project. The Utah State Office, in August 1982, published a basin-wide draft EIS covering all oil shale projects requiring their approval.

c) Issues

Development of the fundamental technology of oil shale is well advanced, but still lacks testing at commercial scale. Nevertheless, a wide array of economic, environmental, and some technological uncertainties remain. Congress considered legislation in 1981 concerning off-site waste disposal, lease size, and related issues in the belief that legal changes are necessary so the flexibility to meet the challenges of development is maintained. This legislation is still under consideration. Experience to date suggests that the current maximum acreage of oil shale leases may be insufficient for commercialization in areas where shale deposits are relatively thin.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors, Colorado, Utah and Wyoming

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	*4,523	3,675	3,686

*This figure includes \$4,000 in oil shale supplemental received later in the fiscal year.

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	4,431	3,490	3,686
Work Years	23	63	52

4) Performance

N/A

B.5. TAR SAND LEASING

a) Program Description

Nationwide, the United States has an estimated 30 billion barrels of tar sand oil, of which two billion barrels are deemed recoverable with today's technology. Approximately 100 to 200 million barrels

can be recovered by surface mining. The rest will probably require some form of *in situ* techniques for recovery. Over 90 percent of the United States' tar sand deposits are in Utah. The eleven major tar sands areas are principally on Federal lands, some of which are intermingled with state lands.

The Combined Hydrocarbon Leasing Act of 1981 was signed into law on November 16, 1981. The primary effect of this legislation was to redefine the term oil to include all non-gaseous hydrocarbons except coal, oil shale, and gilsonite. With this change, there is no longer a need, in new oil and gas leasing, to distinguish between tar sand and oil. The need to distinguish between tar sand and oil had created sufficient administrative difficulty in the past so as to completely deter Federal tar sand leasing. The Act created a competitive combined hydrocarbon leasing program in the eleven major tar sand areas (referred to as Special Tar Sand Areas-STSAs). It also provided a right to existing oil and gas leases and holders of valid claims to hydrocarbons in the eleven STSAs to be converted without competitive bidding to combined hydrocarbon leases.

b) Progress Report

The Combined Hydrocarbon Leasing Act required that the Secretary issue final regulations governing the conversions of existing oil and gas leases and valid claims to combined hydrocarbon leases within six months of enactment. On May 24, 1982, final regulations implementing this requirement were issued. The regulations require that conversion be based upon the Minerals Management Service approving a plan of operations that demonstrates diligent development of the hydrocarbon resource requiring enhanced recovery methods and reasonable protection of the environment.

Regulations governing the competitive leasing of combined hydrocarbons were proposed on June 14, 1982. Final rules are expected to be issued in FY 83. A regional Environmental Impact Statement (EIS) is being developed to analyze the impacts of a proposed 1984 lease sale. The EIS will also cover amendments to the land use plans on the planning areas which encompass the Special Tar Sand Areas to allow for potential tar sand development in those areas. It will also analyze the cumulative impacts of the conversion effort that will be under way at that time.

c) Issues

The Combined Hydrocarbon Leasing Act provided mechanisms for leasing tar sand through the rede-

finition of oil and through the creation of combined hydrocarbon leases within the Special Tar Sand Areas. However, although the Congress, through the conversion clause, provided a grandfather right for existing oil and gas leases within the Special Tar Sand Areas, no such right was included with the provision which redefined oil. As a result, holders of oil and gas leases outside the Special Tar Sand Areas who find tar sand on their leases have no mechanism for developing the resource. The only option available for these leaseholders is to relinquish their lease and to try to re-lease the property through the various oil and gas leasing mechanisms.

d) Budget and Performance Analysis

The Tar Sand program was funded as part of the Oil Shale program in FY 82.

B.6. GEOTHERMAL LEASING

a) Program Description

Some 60 percent of the known or potential geothermal resources of the Nation are on Federal land. Responsibility for the Federal Government's overall geothermal effort is shared by the Departments of the Interior, Agriculture, and Energy. Within the Interior Department, BLM issues leases, prepares prelease environmental reviews, and collects rentals. The Minerals Management Service monitors and prepares environmental analyses of all post-lease exploration and development, identifies potential geothermal resources for competitive bidding purchases, assists in determining fair market value for use of the resources, and collects royalties.

Under the authority of the Geothermal Steam Act of 1970, leasing within known geothermal resources areas (KGRAs) is based on competitive bonus bidding. Lands outside of known geothermal resources areas are leased to the first qualified applicant. All leases are for ten years.

b) Progress Report

FY 82 was an outstanding year for geothermal leasing on Federal lands. Over 1 million more acres were leased, bringing the cumulative leased land area to over 5 million acres. Of greater importance, approximately one-half of all the leases issued in FY 82 were located in California, the State with the highest potential for geothermal energy. Most of the leases issued involved applications that had

been on file since 1974 when the leasing program began.

As a result of the increased rate of leasing (four time more leases were issued in California than in the entire preceeding 8 years), total revenues in the leasing program increased from \$11 million in FY 81 to almost \$30 million in FY 82, including over \$23.5 million in bonus bids from competitive lease sales. 50 percent of all these monies were returned to the States in which leasing occurred.

New lease applications continue to be received at a rate of about 900,000 acres per year. The leasing program in 1983 will be directed at processing all new lease applications within 90 days of receipt. Competitive lease sales, primarily involving National Forest System lands, will be held as soon as possible after lands become available.

c) Issues

A major issue involves the maximum acreage limitation per state. The current limitation of 20,480 acres has been a severe impediment to developers who generally require a stronger land position before investing the large amounts of capital needed for exploration. The limitation also has been a disincentive for many companies to even participate in the leasing program. The Department has supported provisions in a number of bills that would raise the acreage limit but, as yet, none has been enacted. cl05d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors, especially California, Nevada, and Oregon

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	2,561	2,305	2,318

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	2,194	2,100	2,318
Work Years	58	61	67

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Competitive sales.....	4	16	6
Competitive leases issued.....	41	108	20
Noncompetitive leases issued.....	264	465	300
Power plant licenses.....	0	1	2
Post-lease actions.....	154	157	150
Nonelectrical use licenses	0	0	1

B.7. NONENERGY MINERALS

a) Program Description

The public lands have been the primary source of nonenergy mineral production in the United States. The Federal onshore mineral estate consists of approximately 732 million acres of public and acquired lands and lands in which the surface estate has been patented but the subsurface mineral estate has been reserved by the Federal Government. However, a considerable part of the public lands has been classified by various legislative or administrative actions that prohibit or restrict nonenergy mineral development.

Federal minerals are made available primarily under four laws: by mining claim location under the Mining Law of 1872, by lease under the Mineral Leasing Act of 1920 and the Mineral Leasing Act for Acquired Lands of 1947, and by sale under the Materials Sales Act of 1947. In the lexicon of public land management, they are often described as locatable, leasable, and salable minerals, respectively.

The Mining Law of 1872 encourages the search and discovery of locatable mineral deposits on public lands by means of a mining claim location/patent system. The discoverer of a valuable mineral deposit has the right to acquire fee title to the acreage of a lode or placer claim. This law continues to apply to uranium and the nonenergy minerals not subject to leasing or sale on all public domain lands.

Until 1976, when the Federal Land Policy and Management Act (FLPMA) was passed, claimants generally filed their location notices and other claim records only with county clerks. As a result, the Federal Government had no official record of the number, location, or identity of claims or claimants. FLPMA, however, requires a claimant to file with BLM a copy of the location notice and to file annually thereafter, with BLM, evidence that the claim is

not abandoned. In addition, FLPMA requires that claims located prior to October 21, 1976, must have been recorded with BLM on or before October 22, 1979. By that statutory deadline, 1,087,376 mining claims were recorded with BLM. By the end of FY 82, over 1.6 million claims were recorded.

FLPMA also directs that in managing the public lands, the Secretary shall take any action necessary to prevent unnecessary or undue degradation of the lands. Pursuant to this directive, BLM promulgated regulations that govern mining activity on public lands. Regulations to prevent impairment (from mining activities) of the suitability of lands under wilderness review for inclusion in the wilderness system (43 CFR 3802) were issued in March 1980. Final regulations governing mining activity on public lands other than wilderness study areas (43 CFR 3809) became effective January 1, 1981. Amendments to the latter regulations were proposed in 1982, and final amendments are expected to be published in 1983.

The Mineral Leasing Act provides for both competitive and noncompetitive leasing of sodium, phosphate, potash and, in two states, sulfur. Leases have a 20-year term, may cover a maximum of 2,560 acres, and can be renewed or readjusted for additional terms. Prospecting permits are issued prior to the issuance of noncompetitive leases and discovery of a valuable deposit entitles the permittee to a lease without competition. A variety of rental and royalty provisions apply, varying with the mineral involved. Unlike coal or oil and gas, there are no diligent development requirements under these leases. Proposed revisions to the non-energy mineral leasing regulations (43 CFR 3500) were published in March 1982. The revisions would streamline the processing of prospecting permits and lease applications. The revisions would also make acquired lands more readily available for exploration and development. Final revisions are expected to become effective in early 1983.

The Materials Act makes minerals such as sand, gravel, and building stone available for commercial use. They are sold either competitively or noncompetitively. Some sales are made to individuals for exclusive rights to a site. Other sales are made for material from common use areas or community pits. Governmental agencies and nonprofit organizations may be granted such materials at no charge under a free-use permit. Proposed revisions to the material sales regulations were published in the *Federal Register* on May 2, 1982. These revisions clarify existing ambiguities and assist in streamlining disposal processes.

In order to meet the policy expressed by Congress in Sections 102 and 103 of FLPMA, which require that BLM protect scientific values on the public

lands and protect life and property from geologic hazards, a geology program was established in FY 78. This program is designed to give recognition to non-mineral geologic resources such as paleontology, groundwater, and geologic processes and features as well as to identify geologic hazards and mitigate their dangers. The program includes the inventory of the resources and hazards, protection of important geologic and paleontologic sites, managing the resources for recreational, educational, and scientific uses, protection of the public from geologic hazards, interpretation of geologic phenomena for the public, and monitoring groundwater development and use. In addition, the program has responsibility for the geologic and hydrologic considerations involved in hazardous materials disposal and siting.

b) Progress Report

Inventories of the public lands for paleontologic and geologic resources continued in FY 82 as part of land use planning. Several sites that will require special management have been identified. Management plans are presently being developed for these scientifically significant sites. Draft rules for the scientific, hobby and commercial collecting of fossils and other geologic materials have been published. The final rules are expected to be published in FY 83. Guidelines dealing with several aspects of groundwater, fossils, and geologic hazards have either been issued or are under development. Hazardous materials management guidelines are currently being developed.

With the enactment of the National Materials and Minerals Policy, Research and Development Act, on October 21, 1980, BLM was brought into the national effort to "promote an adequate and stable supply of materials necessary to maintain national security, economic well-being and industrial production . . ." The Act, which reaffirms the provisions and requirements of the Mining and Minerals Policy Act of 1970, requires specific actions by several departments of the Executive Branch.

To ensure that geology, energy, and mineral resources are fully considered in land use planning and other BLM decisionmaking processes, BLM established a program for geology and mineral assessment in FY 81. This program develops standards for the geology, energy, and mineral resource information necessary for land use planning and develops policy guidance for the consideration of mineral resource values in planning and decision-making. These activities help assure that lands valuable for mineral resources are identified in a timely manner and properly considered in the development of land use plans, and thus are available for

exploration and development as the market requires.

During FY 82 BLM analyzed the energy and mineral resource potential of more than 13 million acres of Wilderness Study Areas (WSAs). These analyses will be integrated with other resource data in the BLM planning process for WSAs and ensure that energy and mineral resources will be considered as early as possible in the wilderness study process.

c) Issues

The availability of important nonfuel minerals has been overshadowed by energy mineral problems since the 1973 oil crisis. However, the domestic shortage of many nonenergy minerals has produced an unfortunately similar dependence upon foreign supplies. Although many factors contributing to this foreign dependence are beyond the influence of BLM, the resource potential of the public lands is an issue which BLM can address. BLM must ensure that it provides maximum opportunity for the exploration of, development of, and access to mineral-rich public lands.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	9,776	9,771	10,409

FUNDING

	1981 Enacted	1982 Enacted	1983 Proposed
MINERAL LEASING			
Appropriation (\$000s)	2,172	1,588	1,593
MINING LAW ADMINISTRATION			
Appropriation (\$000s)	5,247	6,365	6,697
MINERAL MATERIALS			
Appropriation (\$000s)	2,357	1,818	2,119

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000')	9,401	9,148	10,409
Work Years	294	281	280

PROGRAM OBLIGATIONS

	1981 Enacted	1982 Enacted	1983 Proposed
MINERAL LEASING			
Dollars (\$000s)	1,723	1,534	1,593
Work Years	50	31	26
MINING LAW ADMINIS- TRATION			
Dollars (\$000s)	5,249	5,931	6,697
Work Years	170	200	203
MINERAL MATERIALS			
Dollars (\$000s)	2,429	1,683	2,119
Work Years	74	50	51

4) Performance

MINERAL LEASING

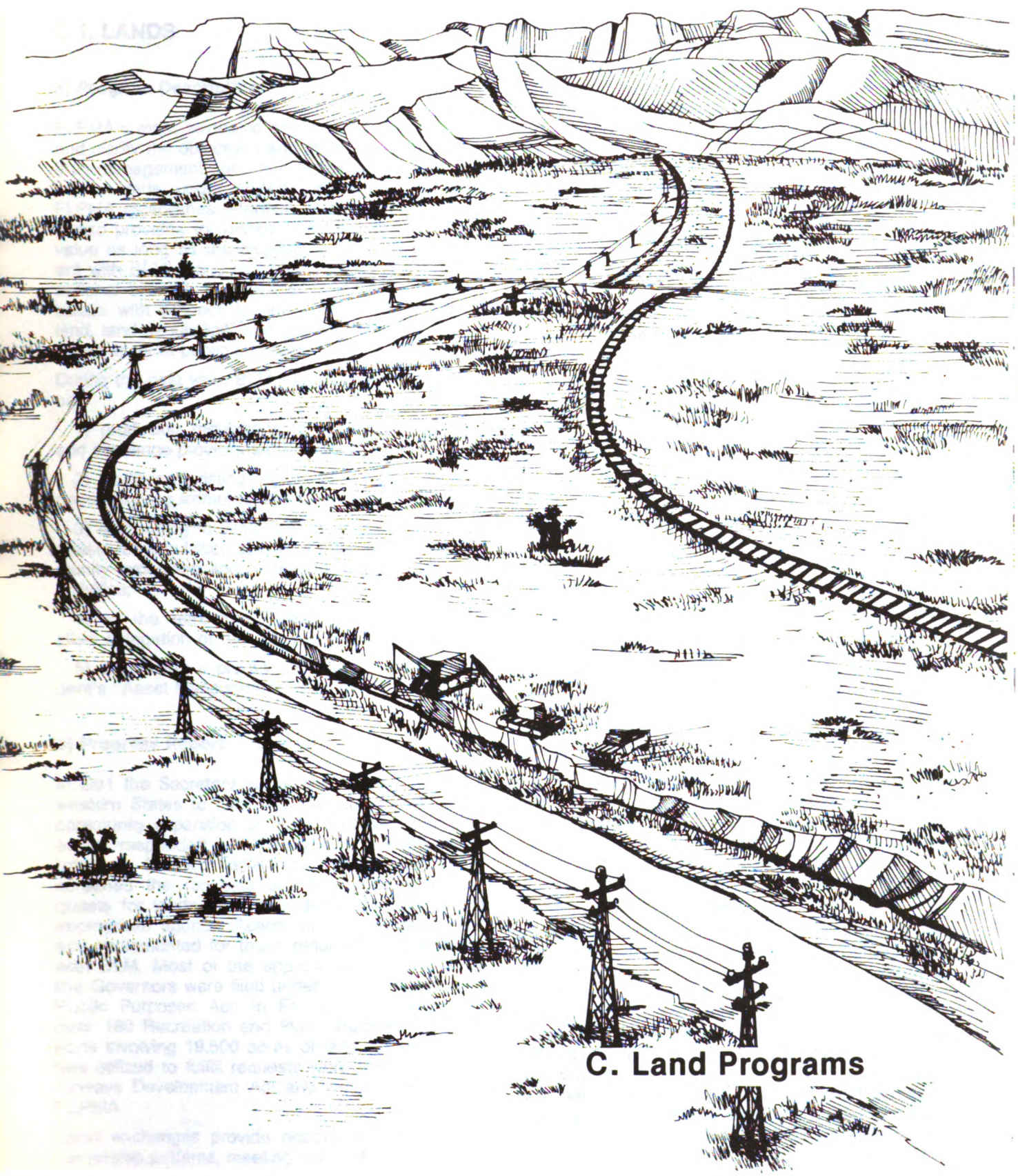
Work Units	1981 Actual	1982 Actual	1983 Planned
Use authorizations.....	408	403	400
Environmental analyses and field exams complet- ed	151	117	96
Compliance checks con- ducted	58	80	72

MINING LAW ADMINISTRATION

Work Units	1981 Actual	1982 Actual	1983 Planned
Plans of Operation Re- viewed.....	-	556	608
Notices Reviewed	-	1,690	1,756
Mineral patent applications processed.....	200	120	170
Mining Claims Recorded	-	175,703	150,000
Environmental Analyses completed.....	226	432	433
Filings (other than mining claims).....	3,059	4,833	-

MINERALS MATERIALS

Work Units	1981 Actual	1982 Actual	1983 Planned
Use Authorizations issued.....	2,960	2,716	2,221
Trespass cases processed...	47	27	52
Compliance checks con- ducted	1,673	1,687	1,200
Environmental assess- ments completed.....	425	368	546



C. Land Programs

C. LAND PROGRAMS

C.1. LANDS

a) Program Description

FLPMA's most sweeping effect was to consolidate and clarify the objectives and procedures governing the management of the remaining unreserved public lands under BLM's jurisdiction. Although FLPMA establishes retention as the general policy, it also provides for disposal of land at fair market value as long as the disposal is generally consistent with BLM's land use plan and is clearly in the national interest. FLPMA clarifies BLM's responsibilities with respect to land sales, exchanges of land, land acquisition, and granting of rights-of-way for a variety of public purposes.

During the past year, BLM's lands program focused on:

- 1) producing regulations to implement the sale and exchange provisions of FLPMA;
- 2) modifying existing regulations to eliminate unnecessary requirements and streamline procedures;
- 3) responding to State and local government requests for acquisition or use of public land for community expansion and recreation or public purpose activities;
- 4) to the maximum extent 'decentralizing' to allow delegation of decisions to the field level; and
- 5) developing a program to carry out the President's "Asset Management" initiative.

b) Progress Report

In 1981 the Secretary invited the Governors of the western States to identify public lands needed for community expansion or other activities. The Governors responded with nearly 400 requests for a total of 973,000 acres of public land. BLM screened the requests and forwarded those requests for lands not administered by BLM to the appropriate agency. Action plans were developed and implemented for those requests that remained with BLM. Most of the applications received from the Governors were filed under the Recreation and Public Purposes Act. In FY 82, BLM processed over 160 Recreation and Public Purposes applications involving 19,500 acres of land. Other authorities utilized to fulfill requests were the Airport and Airways Development Act and various sections of FLPMA.

Land exchanges provide opportunities to simplify ownership patterns, meeting both public and private

needs. Amendments to the FLPMA regulations, designed to simplify and clarify the exchange process, were proposed September 23, 1982. The most significant change would provide for equal value rather than fair market value appraisals, as now required in existing regulations. This amendment would bring the regulations into greater conformity with Section 206 of FLPMA. It also would allow greater flexibility in exchanges, especially in oil shale exchanges where there is insufficient information to permit a fair market value appraisal. Other proposed amendments involve the relationship between planning and exchanges, elimination of certain publication requirements, and deletion of the requirement making exchanges subject to the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970.

During FY 82 review and evaluation of all lands regulations were emphasized as part of the Administration's regulatory reform program. A number of changes eliminated unnecessary requirements and streamlined the regulations. Proposed regulations on recordable disclaimers of interest and on correction of conveyance documents were issued May 3, 1982, with final regulations scheduled in FY 83. Further efforts on regulatory reform for sales and recreation and public purposes disposals is scheduled during FY 83.

As western states were admitted to the Union, they were granted Federal land for a variety of purposes. At the beginning of 1982, eight states (Arizona, California, Colorado, Idaho, Montana, South Dakota, Utah and Wyoming) had a total remaining entitlement of 528,000 acres. During this year, BLM transferred 80,000 acres, satisfying more than 20 percent of the remaining entitlement.

Activity under the Desert Land Act of 1877 continues to be very heavy in the Nevada and Idaho. There is less activity in other states due to various factors such as limited availability of lands and/or water. As of September 30, 1982, there were 3,500 desert land entry applications still on file; 1,800 of these have been processed.

In keeping with the Administration's desire to decentralize decisionmaking, BLM State Offices were instructed to delegate responsibility for processing lands cases to local District and Area Offices. In the past, most applications were received in the State Offices, reviewed, and then sent to the local field offices for evaluation. Transferring authority to the local offices enhances the face-to-face discussion between the applicant and the field manager, helping to avoid misunderstandings and unnecessary delays. Another benefit of decentralization will be the increased decisionmaking authority the on-

the-ground manager will have, allowing BLM to be more responsive and timely.

c) Issues

Although much has been accomplished, more opportunities exist to streamline procedures for responding to requests for use and acquisition of public land. Key elements of this effort are the ongoing review and revision of out-dated regulations and procedures, and the further delegation of decisionmaking authority.

Another issue is the need for modernization and automation of the Bureau's lands and minerals records system. BLM currently maintains records on millions of realty transactions using very costly and time consuming manual procedures. A three-year project of transferring the data to computer was initiated in FY 82.

d) Budget and Performance (Lands and Realty)

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	43,978	33,357	42,441

FUNDING			
	1981 Enacted	1982 Enacted	1983 Proposed
SERVICE CHARGES, DE- POSITS AND FORFEIT- URES			
Appropriation (\$000s)	9,600	*6,341	10,000
ENERGY RELATED REALTY			
Appropriation (\$000s)	9,714	5,712	7,453
NON-ENERGY RELATED REALTY			
Appropriation (\$000s)	24,664	21,304	24,988

*Actual amount appropriated was 6,341, however, 2,300 in carryover was brought forward from the previous year.

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	40,092	33,207	42,441
Work Years	1,206	995	1,027

PROGRAM OBLIGATIONS			
	1981 Enacted	1982 Enacted	1983 Proposed
SERVICE CHARGES, DE- POSITS, AND FORFEIT- URES			
Dollars (\$000s)	8,296	6,472	10,000
Work Years	176	111	114
ENERGY RELATED REALTY			
Dollars (\$000s)	9,719	5,633	7,453
Work Years	288	206	216
NON-ENERGY RELATED REALTY			
Dollars (\$000s)	22,077	21,102	24,988
Work Years	742	678	697

4) Performance

ENERGEY RELATED REALTY			
Work Units	1981 Actual	1982 Actual	1983 Planned
Environmental Analyses	2,380	1,621	-
Environmental Statements	-	13	-
Field Examinations	4,789	5,693	-
Use Authorizations	2,758	3,567	-
Compliances	3,567	4,448	-

NON-ENERGY RELATED REALTY			
Work Units	1981 Actual	1982 Actual	1983 Planned
Field Examinations	4,921	4,384	-
Title Transfers	1,648	4,897	-
Use Authorizations	8,917	4,552	-
Compliances	2,322	2,708	-
Inventory (Acres)	12,537,995	4,743,223	-

C.2. ASSET MANAGEMENT

a) Program Description

Asset Management is part of a new Federal initiative bringing added emphasis to the ongoing practice of reviewing Federal real property and lands to identify surplus properties for disposal. Executive Order 12348, signed by the President on February 25, 1982, created the Property Review Board. The

Board reviews and develops Federal real property acquisition, utilization, and disposal policies to ensure that unneeded and underutilized Federal property is made available for sale at fair market value. BLM is evaluating lands to determine which should be retained in public ownership for multiple use management and which are more suited for disposal to private and other governmental interests. As directed by FLPMA, this task is accomplished through BLM's land use planning system on a site specific basis, with full involvement of interested citizens, local officials, state governments, and affected Federal agencies.

Within BLM, the Asset Management initiative involves several ongoing disposal programs including: public sales, land exchanges, state indemnity selections, recreation and public purposes leases and sales, Carey Act disposals, Desert Land Act disposals, and Indian allotments.

One of the first determinations made in the implementation of Executive Order 12348 was that certain categories of land would not be sold. These are lands within the National Park System, National Wildlife Refuge System, Indian Trust Lands, and other lands with unique characteristics and national values. These include: wilderness areas, designated wild and scenic rivers, national or historic trails, national conservation areas, national or research natural areas, areas designated for cultural or natural history, areas of critical environmental concern, designated wild horse preserves, and any areas having a Congressional designation.

b) Progress Report

In April 1982, BLM developed an initial inventory of the public lands that could be disposed of without affecting BLM's resource management programs according to existing BLM land use plans. Lands targeted were:

- High value lands near expanding communities,
- Scattered, isolated and unimproved tracts, which are often difficult and costly to manage,
- Lands having agricultural development potential,
- Other lands not needed for Federal programs, and having greater potential in private ownership.

Approximately 2.5 million acres have been identified as potentially available for disposal.

c) Issues

During FY 83, BLM will develop detailed plans to implement the Asset Management initiative in FY 84. The ultimate decisions as to which lands will be transferred will be based on a variety of factors,

with consideration of the needs and desires of present users, prospective buyers, and local governmental entities.

C.3. RIGHTS-OF-WAY

a) Program Description

The Bureau's rights-of-way program includes two distinct activities. First, it covers the granting of rights-of-way for the use of public lands for a variety of private and public uses. These rights-of-way cover such linear uses as roads, trails, pipelines, powerlines and canals and also non-linear uses such as power generating plants, communications facilities and reservoirs.

The primary authorities for granting rights-of-way are FLPMA and the Mineral Leasing Act (MLA). The MLA authorizes rights-of-way for oil, natural gas, and synthetic fuel facilities while FLPMA, which repealed numerous early R/W authorities is now the granting authority for most other rights-of-way uses.

The thrust of the rights-of-way program in the last several years has been energy related in response to industry's increased exploration and development activities for oil and gas and other energy minerals. BLM has experienced a significant increase in applications for pipelines, access roads to lease areas, and for other ancillary facilities needed to expand development of these resources.

The second aspect of the program involves the acquisition of lands or interests in lands (easements) to improve the management of public lands. The Bureau's acquisition program is primarily directed at obtaining access over intervening private lands to permit uses such as mineral development, forest and range management, fire protection, and recreation on the public lands. A few small parcels of land are also acquired for special needs such as seed orchards, nurseries and offices complexes.

FLPMA, in addition to being BLM's general acquisition authority, authorizes the use of money from the Land and Water Conservation Fund (L&WCF) to acquire lands valuable for outdoor recreation. BLM also has authority to acquire lands or easements for intensive management of specific legislated areas such as the King Range in California, the Pacific Crest Trail and Wild and Scenic Rivers.

It is BLM's policy to use its acquisition authority sparingly. It is not BLM's policy to add significant new acreage to the public domain, but rather to resolve irregularities in ownership or to acquire legal

rights which contribute in some significant manner to management objectives.

In 1971, the Alaska Native Claims Settlement Act (ANCSA) authorized reservation of public easements on lands to be conveyed to Alaska Native corporations. As a result, several thousand easements across Native lands providing access to public lands and resources were reserved to the United States Government throughout Alaska. These easements are periodically reviewed, as required by ANCSA, to determine if location is as specified in the conveyance and if the easement is being used. If the easement is not being used, rights of access may be terminated.

b) Progress Report

BLM's rights-of-way regulations were revised in FY 82 to eliminate unnecessary duplication in application requirements and to simplify the rights-of-way process. The revision resulted from BLM's report "Energy Facility Permitting Process," completed April 1981, and from public recommendations. The authority to issue right-of-way grants continued to be transferred to BLM District Offices. This change is reducing application processing time substantially while still meeting resource management and environmental needs.

Major rights-of-way streamlining procedures in FY 82 included:

- Development of a comprehensive right-of-way granting Manual series;
- Development of a standard right-of-way application form;
- Development of a standard Bureauwide right-of-way granting document including standard stipulations;
- Broadened use of Categorical Exclusions; and
- Publication of a Public Service Right-of-Way Brochure.

BLM and the Forest Service continued work in FY 82 under an Interagency Agreement to identify transportation and utility corridors. When the joint corridor work is completed, through the respective land use planning systems, there will be a matrix of preferred right-of-way routes on public and National Forest lands. This matrix will help BLM, the Forest Service, right-of-way applicants, and the public better plan for these important uses.

A substantial portion of the Rights-of-Way Program in recent years has been devoted to processing siting and right-of-way proposals associated with the dramatic increase in domestic energy development and facility construction in the West, the vast

majority of it on public land managed by BLM. In FY 82, BLM was processing applications for right-of-way grants and either conducting or participating in environmental analyses of:

- 12 major pipeline projects;
- 9 major powerplant siting proposals;
- 5 major transmission line proposals;
- 4 major oil shale processing proposals;
- 2 major tar sands processing proposals; as well as
- a variety of major right-of-way projects such as radar sites, oil and gas field development, water related projects (dams, reservoirs, and hydroelectric), wind energy, and others.

Some of the major energy right-of-way projects currently being worked on include:

- Alaska Natural Gas Transportation System (ANGTS)
- Energy Transportation Systems, Inc. (ETSI) Coal Slurry Pipeline
- Allen-Warner Valley Energy System
- San Geronio Pass Wind Generation Site

BLM's access Road Easement Acquisition Policy was revised to make managers more aware of the various options available involving access to the public land. The revised policy provides more flexibility in determining the type of access needed to manage the public land. BLM is currently streamlining its acquisition manual.

In FY 82 BLM expended \$1.2 million for access road easements to support resource programs and provide public access to public lands. Land and Water Conservation funds totaling \$1 million were expended to acquire fee title to scenic easements on 18 tracts encompassing 224 acres. Major acquisitions in 1982 included portions of the Rogue National Wild and Scenic River, the King Range National Conservation area, and the Pacific Crest Trail.

c) Issues

The protection of cultural resources on private lands crossed by a right-of-way continued to be an issue in FY 82. Under existing BLM policy, right-of-way grants include stipulations to protect cultural resources on private lands on the advice of the State Historic Preservation Officer. This policy is now being reviewed to determine BLM's authority to protect cultural resources on non-Federal lands.

BLM's efforts to recover the costs of processing right-of-way applications, as authorized by FLPMA

and the MLA continues to be an issue. Several law-suits were filed by affected applicants in FY 82.

The primary acquisition issue centers on the difficulty of acquiring sufficient numbers of access easements over non-Federal lands to meet management needs. Without this access the Bureau's ability to manage, protect, and develop public lands and resources is restricted and these lands are not available for use by the general public.

While the checkerboard pattern of the Federal and non-Federal landownership is the major factor, other developments that contribute to the lack of adequate access are:

- Roads previously open to use by BLM and the public are now being closed as private lands are sold or conflicts develop.
- Local governments are vacating or abandoning public roads due to budgetary constraints and other reasons.

d) Budget and Performance Analysis

The Right-of-Way Program is funded as part of the Lands Program. The Construction and Access and Land Acquisition aspects are covered in the following:

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: District Managers

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Construction and Access			
Appropriation (\$000s)	1,802	1,73	1,525
Land Acquisition			
Appropriation (\$000s)	-	3,712	311

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Construction and Access			
Dollars (\$000s)	1,617	1,401	1,525
Work Years	56	46	39
Land Acquisition			
Dollars (\$000s)	-	793	311
Work Years	-	9	8

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Examinations.....	115	175	68
Title Transfers.....	157	168	159
Project Survey & Design	132	233	48

C.4. WITHDRAWAL REVIEW

a) Program Description

The Withdrawal Review Program, mandated by FLPMA, authorizes the Secretary to review certain public land withdrawals in 11 western states by 1991. The purpose of the review is to determine whether, and for how long, the existing withdrawals should be continued. BLM completed an inventory of those withdrawn lands in October 1979.

Of some 347 million acres of public lands in the 11 western states, approximately 57 million acres were segregated from some form of mineral exploration and development and were subject to withdrawal review under FLPMA. Specifically excluded from review were lands set aside for the National Park System, Wildlife Refuge System, Wild and Scenic River System, National Trails System, Indian reservations and other Indian holdings, Wilderness Areas, and the National Forest System. Review of withdrawn lands in Alaska and the eastern states in also not required under FLPMA.

In addition to acreage closed to mineral exploration and development, some 124 million acres of public land were closed by BLM classification orders to some or all of the nonmineral public land laws. BLM is reviewing all of these classifications and terminating them when appropriate.

b) Progress Report

During FY 82 BLM achieved several major goals including:

- completion of field review of all remaining BLM withdrawals.
- establishment of mutually satisfactory schedules for the review of other agency withdrawals.

FY 82 was a year of significant accomplishment. BLM reviewed approximately 20.3 million acres of public lands withdrawn from all or some of the mineral and nonmineral public land laws. The Secretary

approved 274 public land orders revoking withdrawals on 7.2 million acres, of which 4.6 million acres were opened to mining and 1.5 million acres to mineral leasing. Another 7.8 million acres of proposed revocations are nearing final approval. As part of the overall review, BLM also terminated approximately 97.2 million acres of restrictive land classifications, further enhancing multiple use of public lands.

c) Issues

The general public has not voiced an opinion, pro or con, on the review program itself. Certain groups, on occasion, have expressed concern over proposals to open areas receiving heavy public use and/or containing special values to multiple use management including mining and mineral leasing.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	3,931	4,088	3,840

3) Program Obligations

	1981 Actual	1982 Actual	1983 Proposed
Dollars (\$000s)	3,498	3,798	3,840
Work Years	101	112	108

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Processing withdrawal applications/revocations.....	706	176	265
Withdrawal review	597	1,023	600
Classification review.....	400	535	200

C.5. ALASKA LANDS

a) Program Description

The Alaska lands program was established to implement the Alaska Statehood Act, ratified on January 3, 1959, and the Alaska Native Claims Settlement Act of December 18, 1971, as amended (ANCSA). The Alaska Statehood Act granted or confirmed to the State approximately 104.5 million acres. ANCSA granted Alaska Native corporations 44 million acres of land. Conveyance of lands selected under these authorities is BLM Alaska's top priority. However, such conveyances are complicated by a number of factors.

There are approximately 7,900 pending Native allotment cases (12,500 parcels) in Alaska. About 3,600 cases (6,000 parcels) were legislatively approved under Section 905 of the Alaska National Interest Lands Conservation of 1980 (Alaska Lands Act). These require boundary staking, survey, and issuance of Certificates of Allotment. The remaining 4,300 cases (6,500 parcels) require various degrees of field examination, conflict resolution, adjudication, survey, and certification.

In addition to the Native allotments, there are approximately 500 pending Alaska settlement claims and other applications for title transfer of small parcels. About 190 settlement claims were legislatively approved pursuant to Section 1328 of the Alaska Lands Act. Adjudication of the remaining claims and other filings must still be completed. All parcels will require boundary staking, survey, and preparation and approval of the survey plat before the patent can be prepared and issued.

Thousands of applications for Native allotments and hundreds of applications for settlement claims and other small tracts are within lands selected by the Native corporations and the State. These applications must be processed, surveyed, and conveyed before the Native corporations or the State can receive patent to the affected adjacent lands.

Approximately 80,000 mining claim location notices are on file with BLM in Alaska. About 12,000 new claims are filed each year. Tens of thousands of mining claims have been filed on lands selected by the Native corporations and the State. Before these lands can be conveyed, determinations must be made as to whether claims are properly filed under FLPMA and if annual affidavits of assessment or notices of intent to hold the claims are timely filed. Also, all applications for mineral patent must either be processed or declared null and void.

More than 1,000 Federal withdrawals must be reviewed and possibly processed for conveyance to

Alaska Native corporations and the State of Alaska. All Federal withdrawals affecting Native corporation selections must be reviewed to determine lands to be transferred or retained by the Federal agency. Determinations also must be made on conveying State-selected lands.

Surveys are still needed on about 14 million acres of Native corporation exterior boundaries, 58 million acres of State exterior boundaries, 16,000 Native allotment parcels, 6,000 other small parcels and exclusions, and 204 small village reconveyance parcels. Native and State entitlements are based upon surveyed acreages. Therefore, full entitlements cannot be determined or conveyed until all related surveys (including inholdings such as Native allotments) are completed.

Another high priority is the review of nearly 40 million acres of BLM lands in Alaska for possible homesteading, homesites, trade and manufacturing sites and headquarters sites (collectively referred to as the Alaska Settlement laws), mining and mineral leasing. The review does not include lands in the National Petroleum Reserve in Alaska (NPR-A), the Central Arctic area or lands selected by the State or Alaska Native corporations. Because FLPMA repealed the Alaska Settlement laws, effective October 22, 1986, a five year program to review these lands was initiated in June 1981. The land use planning process is used to identify lands that can be opened and the types of use that can be made of them. Views of the State, Alaska Native corporations and the public help in the identification of specific lands to be opened.

b) Progress Report

As provided by the Alaska National Interest Lands Conservation Act of 1980 (Alaska Lands Act), the State can select lands until January 1, 1994. In November 1981, more than 100 million acres were made available for future selection by the State. Of these, about three million acres had previously been selected by the State and were made available for conveyance in FY 82. In February 1982, the State filed selection applications for an additional 10 million acres. Many of these selections will be conveyed in FY 83.

During FY 82, BLM conveyed more than 13.3 million acres to the State. This means that as of September 30, 1982, the State has received title to 67.4 million acres, about 65 percent of its entitlement. This includes patent to 22.0 million acres and tentative approval for patent to an additional 45.4 million acres.

During FY 82, BLM conveyed more than seven million acres to Alaska Native corporations. This means that as of September 30, 1982, decisions to

convey have been issued for 30 million acres of land, or 68 percent of their entitlement. Alaska Native corporations own 23.2 million acres; about 53 percent of their entitlement. They have received 3.4 million acres by patent and 19.8 million acres by interim conveyance (legal title which requires survey).

In FY 82, BLM published the first opening of lands in Alaska to Alaska Settlement Claims since 1974, and to mineral leasing since 1966. Lands were also opened to non-metalliferous mining.

In February 1982, about 10,880 acres were opened to homesites, trade and manufacturing sites and headquarters sites; about 276,000 acres were opened to mining; and about 950,000 acres were opened to mineral leasing, all in the Minchumina area of Alaska. The Public Land Order opening these lands also provides for the automatic opening of an additional 9,600 acres to homesites, trade and manufacturing sites and headquarters sites on December 31, 1982, and an additional 9,600 acres on December 31, 1983.

A second opening was made in September 1982. This opening, in the Denali/ Tielke areas of Alaska, resulted in about 407,000 acres being made available to FLPMA leasing and disposal, about 2.1 million acres to mining, and about three million acres to mineral leasing.

The transportation and utility corridor north of Fairbanks, Alaska, including the Trans-Alaska Pipeline System and the proposed Alaska Natural Gas Transportation System, was also considered for opening in FY 82. However, the opening, has been postponed pending the resolution of several matters, including the identification by the State of areas within the corridor that it wishes to select.

c) Issues

As lands are conveyed to the State and Alaska Native corporations, BLM must make an administrative determination, subject to judicial review, that affected waterbodies are navigable or non-navigable. The State owns lands under navigable inland waterways and these acreages are not charged against its entitlement. Under current departmental policy, the State and Alaska Native corporations are charged for all selected submerged lands under non-navigable waterbodies.

The State and many Native corporations feel that BLM determines too few waterbodies as navigable and are concerned that the successful court challenges to these determinations could come too late for them to realize their full entitlement to Alaska Native Corporation lands.

Section 901 of the Alaska Lands Act established a statute of limitations for challenging non-navigability determinations made by BLM on lands being conveyed to Alaska Native corporation lands. The State of Alaska and the Alaska Sportsmen's Association have filed lawsuits claiming this statute of limitations is unconstitutional. Discussions to resolve this litigation began in FY 82. Until these questions are resolved, disagreements over BLM's determinations will continue.

C.6. WILDERNESS REVIEW PROGRAM

a) Program Description

FLPMA made the preservation and management of wilderness a part of BLM's multiple use mandate for the public lands. Comprehensive inventories of the public lands are required to identify potentially suitable areas for the National Wilderness Preservation System. Public participation occurs throughout the three major phases of the wilderness review process: inventory, study, and recommendation.

Wilderness study areas must be evaluated in detail to determine whether they are suitable for preservation as wilderness or more suitable for nonwilderness uses. Before lands are recommended to Congress as suitable, they must be surveyed for mineral values by the U.S. Geological Survey and the Bureau of Mines. Based on the study, the Secretary of the Interior will submit recommendations on each wilderness study area to the President. The President, in turn, will send his recommendations for wilderness to Congress within two years of the Secretary's recommendation. Only Congress can designate areas as part of the National Wilderness Preservation System.

In addition to the overall wilderness review, FLPMA required the Secretary to make wilderness recommendations to the President by July 1, 1980, on areas formally identified prior to November 1, 1975, as natural or primitive areas. By the end of FY 82 one of these recommendations had been made, Aravaipa Canyon Primitive Area (Arizona).

Lands under wilderness review receive special "interim management." FLPMA states that, during the wilderness review, lands must be managed "in a manner so as not to impair the suitability of such areas for preservation as wilderness." The law makes exceptions for valid existing rights and for grandfathered mining, mineral leasing, and grazing uses.

BLM's wilderness review responsibility in Alaska was modified by the Alaska National Interest Lands

Conservation Act of 1980, which exempted BLM lands in Alaska from wilderness review, except for 4.5 million acres in the Central Arctic Area.

b) Progress Report

The wilderness inventory in the western states (excluding Alaska) was completed in November 1980. Of the 175 million acres inventoried, 149 million acres lacked wilderness characteristics and were released from further wilderness review. Some 24 million acres in 949 separate tracts were identified as wilderness study areas. A list of the wilderness study areas was published in the *Federal Register* on March 3, 1981, and in revised form July 8, 1982.

The review of areas previously listed as natural and primitive areas is nearing completion. On September 13, 1982, the President recommended to Congress that it designate Aravaipa Canyon Primitive Area, in Arizona, as wilderness. Of the other 53 natural and primitive areas involved, recommendations on 33 are under review within the Department; recommendations on 11 others will be ready for review in FY 1983; and the remainder will be included with recommendations on adjacent wilderness study areas during FY 83 to FY 86.

Management of any BLM administered lands designated by Congress as wilderness will be guided by the Wilderness Management Policy, published in the *Federal Register* on September 24, 1981. BLM's wilderness studies will be guided by the Wilderness Study Policy, published in the *Federal Register* on February 3, 1982. The document contains planning criteria for recommendations on the suitability or nonsuitability of wilderness study areas for wilderness designation. These studies are now underway. Thirteen wilderness study efforts were completed in FY 82. By the end of FY 86, a total of 90 wilderness study efforts will have been completed, covering all BLM wilderness study areas.

During the review, wilderness study areas are managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (IMP), issued on December 12, 1979. On April 6, 1981, the IMP was changed to recognize all mineral leases issued prior to FLPMA as valid existing rights, thus making them eligible for full development of the lease rights despite the wilderness study status of the lands involved. Other possible changes to the IMP are still under consideration. The Department's objective is to permit exploration and development activities, especially energy and mineral exploration, to the maximum extent permissible under the law, while protecting wilderness values as much as possible.

c) Issues

Some wilderness inventory results have been challenged by the public through formal appeals filed with the Interior Board of Land Appeals (IBLA). The appeals reflect both pro- and anti-wilderness study viewpoints. IBLA is responsible for deciding all appeals.

The scheduling of wilderness studies is also a public concern because lands remain under interim management constraints during the study period. In response to this concern, BLM is attempting to complete studies as rapidly as possible. The majority of areas will have been studied by the end of FY 84, well ahead of the 1991 deadline set by FLPMA. Rapid completion of the studies will enable "non-suitable" lands to be expeditiously released from interim management constraints. The Department has discussed in testimony before the Congress the need for authorization to release such lands as soon as the President has determined they are nonsuitable. FLPMA does not permit their release until Congress has acted on the need for authorization to the President's recommendation.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	12,431	13,970	12,189

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	10,889	13,501	12,189
Work Years	204	198	172

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Inventory (million acres)	36	4.5	1
EIS's (final wilderness)	5	1.3	3.7
Study (million acres)	.2	2.0	5.3
Bureau of Mines/U.S. Geological Survey mineral reports	10	0	0

C.7. RECREATION MANAGEMENT

a) Program Description

The primary objective of BLM's recreation program is to facilitate the use of dispersed and resource-dependent recreation, such as off-highway vehicle use, river rafting, hiking, camping, hunting, and fishing. Many recreational resources, such as rivers, trails, and roadless areas, have National, as well as regional or local significance. In its land use planning, BLM evaluates the significance of these areas and provides for their effective management. In some instances, this planning leads to the areas designation under special National management systems, such as wild and scenic rivers, or scenic, recreation and historical trails.

Nearly all of the public lands managed by BLM are open to recreational use. Areas with specially recognized recreational values include:

- 108 recreational rivers with more than 4,000 miles suitable for floatboating or whitewater use. Thirteen rivers—the Rio Grande, North Fork American, Upper Missouri, Rogue, Beaver, Birch Creek, Delta, Fortymile, Gulkana, Unalakleet, Eel, Trinity, and Klamath—are designated as National Wild and Scenic Rivers. Twenty-two more rivers are currently being considered for inclusion in the system.
- 19 designated components of the National Trail System with nearly 2,000 miles under BLM management; and
- Three National Conservation Areas—Steese, Alaska; California Desert and King Range, California; and one National Recreation Area—White Mountains, Alaska.

A major recreational activity on the public lands is the use of off-road-vehicles (ORVs) such as, motorcycles, minibikes, trail bikes, snowmobiles, dune buggies, and all terrain vehicles. The widespread use of such vehicles began in the late 1960's, and increases significantly each year. BLM recognizes ORV use as a legitimate recreational activity; however, since they frequently conflict with other recre-

ation activities and resource uses (range, wildlife, cultural, etc.), BLM specifically designates public lands as open, closed, or limited to ORV's use.

b) Progress Report

Major program accomplishments in FY 82 include the following:

- A policy to focus expenditures of funds on the highest priority recreation areas was begun to be developed. This will result in a significant realignment that may close many small and locally used recreation areas and sites in the next few years;
- More than 90 special recreation areas, including California Desert Conservation Area, King Range Conservation Area, Lower Colorado River, Red Rocks Canyon Recreation Lands, and many of the popular floatboating rivers in the West were intensively managed. Estimated visitor days are 80-100 million.
- More than 4,000 special recreation permits were issued with an estimated commercial value of \$75 million.
- Mineral Ridge Trail (Idaho) and Coalinga Springs Trail (California) were designated National Recreation Trails.
- The Secretary designated Diamond Craters (Oregon), more than 16,000 acres of public land, an Outstanding Natural Area.
- A new fee policy for special recreation permits and fee-use sites such as campgrounds was developed and reviewed by field officials and the public, and will be implemented in FY 83.
- A research paper, "The Role of Volunteers in the Recreation, Cultural and Wilderness Program," was developed and distributed. This paper calls for better recruiting and use of volunteers.
- A draft "Volunteer Guide Book" was developed and started through field review.

c) Issues

BLM is considering giving priority to special recreation areas of National significance. In conjunction with this effort BLM is developing procedures and incentives to place funding and management responsibilities for areas of greater significance locally than nationally with states and/or the primary beneficiaries of the recreation opportunities.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	7,946	5,688	6,472

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000's)	7,815	5,620	6,472
Work Years	224	167	143

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
River & Trail Studies and Plans	9	5	6
ORV Designations (million acres)	10.7	-	4.7
Recreation Inventory (million acres)	9.4	0	4.9
Special Recreation Permits Issued	4,935	5,340	4,000

C.8. NATURAL HISTORY RESOURCE MANAGEMENT

a) Program Description

FLPMA requires that BLM provide for scientific use of appropriate natural resources, as an integral part of multiple use management. FLPMA also requires BLM to protect the quality of ecological and other scientific resources, and to preserve certain public lands in their natural condition. Similar provisions are contained in the Alaska National Interest Lands Conservation Act, the Oregon and California Grant Lands Act, the Land and Water Conservation Fund

Act, the Taylor Grazing Act, and the National Environmental Policy Act.

BLM is required to consider scientific resource values in formulating, approving and implementing resource development and management plans. In addition, the Natural History Resource Management (NHRM) Program is being developed to enhance BLM's contributions to the Federal Research Natural Area Program, State Natural Heritage Programs, the National Natural Landmarks Program, and the Biosphere Reserves System of the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) Man and the Biosphere Program.

Through the NHRM Program, BLM identifies natural areas on public lands having significant scientific and educational values; develops and implements site specific measures to protect these areas (while allowing all compatible uses), and facilitates use of these areas by researchers, educators and others in environmental science fields. BLM coordinates its efforts with other Federal agencies, state and local governments, and private institutions to identify the types of natural areas needed in a balanced national system.

In the late 1940's, BLM first contributed to the development of a national system of designated Research Natural Areas (RNAs) to maintain natural diversity and facilitate observational scientific research. In total, 28 RNAs have been designated on 58,000 acres of public lands. Reviews are underway on 71 additional sites.

BLM also participates in the National Park Service's National Natural Landmarks (NNL) Program, established by the Secretary in 1963. The purpose of the program is to identify and encourage protection of scientifically selected areas throughout the United States that are nationally significant representatives of the country's natural heritage, without discrimination as to ownership or administrative jurisdictions. Of the 543 National Natural Landmarks designated by the Secretary, 42 occur wholly or in part on BLM-administered public lands.

b) Progress Report

Program accomplishments during FY 82 include:

- 36 existing and potential Research Natural Areas covering 225,000 acres, and public land portions of 17 existing National Natural Landmarks were protected from unauthorized uses;
- 6 sites totaling 4,668 acres in California, New Mexico, and Oregon were established as Research Natural Areas;

- 2 sites covering 3,449 acres in New Mexico were designated by the Secretary as National Natural Landmarks; and
- 12 additional sites, totaling 15,770 acres, were recommended for establishment as Research Natural Areas on the basis of completed site evaluations.

In addition, BLM participated in Biosphere Reserve selection panels for the Mojave and Colorado Deserts and the North Coast Ranges of California. Two of four public land areas evaluated, the Northern California Coast Range Preserve Research Natural Area, and the Santa Rosa Mountains Wildlife Management Area, were recommended by the panels for nomination to the Man and Biosphere International Coordinating Council.

c) Issues

A major concern is the widely recognized, accelerating loss of biotic diversity in the Nation. Systematic procedures and cost effective criteria should be applied to ensure the most efficient use of BLM's resources for preserving unique and representative examples of natural diversity as opportunities for scientific research.

d) Budget and Performance Analysis (Natural History and Cultural Resources)

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	4,153	4,510	4,544

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	4,132	4,259	4,544
Work Years	110	113	103

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Site Protection (#).....	10	53	73
Site Evaluation (#).....	0	31	96
Site Designation (#).....	0	6	-

C.9. CULTURAL RESOURCE MANAGEMENT

a) Program Description

The National Historic Preservation Act, supported by the Federal Land Policy and Management Act, gives BLM its primary direction for managing the Federal government's largest cultural resource base. In a partial inventory BLM has recorded approximately 100,000 archaeological and historic properties and estimates that a full inventory would show five million properties on BLM administered lands.

The inventory sample shows a highly varied physical record of some 20,000 years of human history. Representations of this long past include: the scarcely noticeable scatters and deposits of prehistoric stone tools marking temporary work sites of the hemisphere's earliest human occupants; awe-inspiring twelfth-century A.D. masonry pueblos and cliff dwellings of the Southwest; still visible ruts of early-settlers' wagon trails; abandoned military posts; mysterious aboriginal rock art symbolizing both secular and sacred worlds; mining ghost towns with elaborate Victorian-era architecture; failed homesteads; and many others.

In its cultural resource management program BLM identifies, records, evaluates, plans for, and makes wise use of the cultural resources under its jurisdiction, protecting those which should be conserved against human-caused or natural deterioration. The program's original role was to ensure compliance with the National Historic Preservation Act, the National Environmental Policy Act, and Executive Order 11593. Compliance with these requirements continues to be a major workload feature, however, the focus of the program under FLPMA has shifted toward full management of cultural resources.

b) Progress Report

Program accomplishments in FY 82 include the following:

- More than 270 BLM cultural properties are on the National Register of Historic Places. Approximately 380 additional properties have been

nominated or determined eligible for inclusion. Also, an estimated 14,000 properties have been evaluated as suitable for nomination, a number that is increasing at a rate of over 1,000 properties per year.

- Inventories of existing cultural resource data have been compiled for about 70 per cent of BLM-administered lands. In addition, low percentage sample inventories were completed on about five million acres in FY 82.
- New emphasis was put on using sample inventory results together with other known data to concentrate intensive inventory where it is most likely to reveal significant cultural properties. Predictive modeling of this kind was the subject of several memoranda of agreement with the Advisory Council on Historic Preservation. Modeling reduces inventory time and costs and eliminates unneeded inventory without creating undue risks to significant cultural properties.
- Approximately 10,000 cultural properties have been evaluated and classified according to one or more BLM categories of use: socio-cultural use, current or potential scientific use, management use, and conservation for future use. These classifications give field managers a sound basis for considering the importance of the properties when making multiple use decisions.
- Nearly 25,000 fragile and threatened cultural properties were protected by one or more means, including patrol, posting signs, erecting fences, and site stabilization; periodic patrol was carried out over nearly 2.5 million acres of public lands.
- An award-winning, BLM-produced short feature film, *Antiquities, was distributed through theaters. The film is aimed at improving public understanding and appreciation of cultural properties and discouraging thoughtless vandalism and theft of artifacts. Several brochures with a similar message have also been prepared as part of a public affairs plan and school involvement has begun in several states.*
- Draft cultural resource program regulations, including BLM procedures for complying with the National Historic Preservation Act, were prepared during FY 82. These regulations would integrate governmentwide requirements into BLM management systems.
- Procedures for meeting the permit provisions of the Archaeological Resources Protection Act were prepared, and will be issued when uniform regulations for the Act are published.

c) Issues

A key issue in the cultural resource management program is the inherent conflict between conserving fragile and irreplaceable archaeologic and historic resources and allocating public lands for other uses, such as energy development. BLM depends on the ongoing multiple-use planning process to ensure cultural resource values are given adequate consideration in land and resource use decisions.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding and Program Obligations

The Cultural Resource Program is funded together with the Natural History Program

3) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Inventory (million acres)	1.8	.9	.8
Major Protection/Stabilization (# projects)	38	41	44
Permits (#)	277	384	425



D. Renewable Resources

D. RENEWABLE RESOURCES

D.1. LIVESTOCK GRAZING MANAGEMENT

a) Program Description

The Bureau of Land Management administers grazing by livestock on 170 million acres of public rangelands in 11 western States (exclusive of Alaska). Rangelands are lands on which the native vegetation is predominantly grasses, grasslike plants, forbs, or shrubs. Grazing permits are issued for up to ten years and authorize the annual grazing use by approximately 22,000 livestock operators.

BLM's rangeland management program is guided by the Taylor Grazing Act (TGA) of 1934, FLPMA and the Public Rangelands Improvement Act (PRIA) of 1978. These Acts outline the following broad goals for rangeland management and improvement:

- To administer livestock grazing on public rangelands to balance use and sustain resource productivity.
- To protect and improve the rangeland resources through sound land use planning, which includes making cost effective investment and management decisions.
- To make decisions in consultation, cooperation, and coordination with the lessees/permittees involved, the affected landowners, interest groups, individuals, and other agencies.
- To make sure that improvements in rangelands provide multiple use benefits.

The Bureau conducts soil and vegetation inventories at varying intensities to aid the land use planning process and to provide a baseline for monitoring. Monitoring studies are conducted to determine if rangeland management goals are being met and to determine the need for, and extent of changes from current management practices.

b) Progress Report

The rangeland management program is influenced by the judgement of the U.S. District Court in the case of the *Natural Resources Defense Council, Inc., v. James G. Watt*, . The 1975 court order, as amended in 1978, requires BLM to prepare 144 site specific grazing Environmental Impact Statements (EISs) by 1988. BLM is essentially on schedule in meeting this order, 67 EISs had been filed by September 30, 1982. These EISs addressed livestock grazing on 92 million acres of public lands in ten states; an additional 17 EISs, covering 20 million acres, will be completed in FY 83.

The final grazing management policy issued on March 5, 1982, alters the Bureau's approach to land use plans and associated EISs. Under this policy, a "selective management" concept is used to assign priorities among allotments for actions such as inventories, monitoring, installation of rangeland improvements, supervision of the way the allotment is used, and adjustments in grazing use. The intent of the policy is to obtain the maximum return on each program dollar spent by concentrating management capabilities where the needs are greatest. Major features of the final policy are:

- The grazing portion of land use plans and associated EISs will be prepared at a level consistent with the existing data base and identified resource conflicts. Additional inventory data will be collected only when the need for this information is identified through land use planning. Monitoring information will be used to supplement existing inventory data as a basis for livestock use adjustments.
- Grazing allotments will be divided into three major categories according to their current condition and potential for resource and economic improvement. The primary management objectives for the categories are to: (1) *maintain* current satisfactory condition; (2) *improve* current unsatisfactory condition; or (3) manage the allotments *custodially*, while protecting existing resource values.
- The Bureau will use categorization as the basis for proposing the timing and intensity of needed management actions. Most available funding and personnel will be directed toward allotments in the Improve category, which have a clear potential for cost-effective improvement.

The five Experimental Stewardship Areas: Randolph in Utah; Tonopah in Nevada; Challis in Idaho; East Pioneer in Montana; and Modoc-Washoe in California continued to be evaluated. The cooperative efforts between the concerned agencies (BLM & FS) and the operators have been successful and, in FY 82, the stewardship program began to move from experimental to operational.

A final renewable resources monitoring policy statement, issued on April 16, 1982, provides direction for the coordinated planning and implementation of monitoring studies. Procedures for monitoring and evaluating results are being developed in a series of BLM Manual sections.

Final amendments to the grazing regulations were published in the Federal Register of September 21, 1982. These amendments simplified the existing

regulations and incorporated the changes required by the final grazing management policy.

BLM and the Forest Service jointly initiated a grazing fee study, as required by the Public Rangelands Improvement Act of 1978. That Act established the current grazing fee formula on a 7-year trial period (1979-1985) and requires the Secretaries of the Interior and Agriculture to submit a report to Congress by December 31, 1985. The report is to include an evaluation of the current grazing fee formula, identification of other fee options, and recommendations for a grazing fee system for 1986 and subsequent years. Evaluation of the current formula began in December 1981 with a survey of 12,000 ranching operations in five Northern Great Plains states to check the validity of the forage value index. As a result of this survey, the two agencies modified the 1982 June Enumerative Survey of 16 western states to include additional questions to verify private grazing land lease rates.

Two other major grazing fee studies are ongoing. Colorado State University has been awarded a contract to identify and evaluate other grazing fee options. The Bureau and the Forest Service are conducting a rental value appraisal of public grazing lands in the West to help determine fair market value for public land grazing use. Fair market value was last established in 1966 after a survey of 10,000 ranchers. The current appraisal will survey between 30 to 100 thousand persons leasing either or both public and private grazing lands.

c) Issues

Grazing fees collected for public land use remain an issue. The fee is calculated annually, using a formula provided in the Public Rangelands Improvement Act (PRIA). In 1982 the fee was \$1.86 per Animal Unit Month (AUM), down from \$2.31 in 1981. This 1982 fee of \$1.86 contrasts with the average private grazing land lease rate of \$8.83 per AUM for the same period. The two rates are not directly comparable, however, and one reason for the 7-year trial period for the current grazing fee formula is to allow time for the Secretaries of Interior and Agriculture to refine their data on the value of public land grazing.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors, District Managers

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	44,955	36,138	34,674

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	41,679	34,822	34,674
Work Years	1,140	997	903

4) Performance

	1981 Actual	1982 Actual	1983 Planned
Grazing EIS's Completed (#)	13	21	17
Millions of Acres Inventoried.....	16.2	23.5	13.3
AMP's Implemented (#)	218	220	170
AMP's Supervised (#)	1,465	3,546	7,265
Grazing Permits Issued (#)...	26,332	26,418	24,207
Allotments Monitored (#)	2,125	5,106	4,235

D.2. Range Improvement

a) Program Description

The Bureau's rangeland improvement program is authorized by the Taylor Grazing Act (TGA) of 1934, the Federal Land Policy and Management Act (FLPMA) of 1976, and the Public Rangelands Improvement Act (PRIA) of 1978. These three Acts establish and reaffirm a national commitment to improve the condition of the public lands, with resulting benefits to wildlife, watershed, and livestock. Range improvement activities include, but are not limited to, seeding, fence construction, weed control, water development, enhancement of fish and wildlife habitat, and maintenance of existing improvements. Decisions on the types of improvements needed are reached through the land use planning/EIS process.

Congress annually appropriates funds from two sources to support the Bureau's rangeland improvement program. The range betterment fund consists of 50 percent of all public land grazing fees collected, or \$10 million a year, whichever is greater. These funds are appropriated under the

authority of the TGA, as amended by FLPMA, specifically for rangeland improvement work. Grazing administration funds consist of funds appropriated by Congress under FLPMA and PRIA, which may also be allocated to range improvement. The Bureau currently directs range betterment funds toward implementation of new on-the-ground improvements, while grazing administration funds are used for administration of the range improvement program, preparation of environmental and resource clearances, and other actions needed or required by law to support new improvements. Most maintenance is funded from grazing administration funds.

b) Progress Report

The Bureau is gradually transferring responsibility for maintaining structural rangeland improvements to individuals directly benefiting from the improvements. When the transfer is completed during 1984, funds now being spent for maintenance will be available for new improvements.

To increase the amount of funds available for improvement work, the Bureau is encouraging private contributions toward rangeland improvements on public lands. Interim policy guidelines issued during FY 82 provide incentives for private contributions, including assigning a high priority to implementation of improvements funded with private contributions.

New economic analysis procedures for making decisions about investments in rangeland improvements were developed during FY 82 by BLM, in cooperation with a special task force of western University economists. These procedures, which consist of three gradually tighter economic screens, will help determine which grazing allotments can produce the greatest return on dollars invested and where the dollars should be invested first. Investments that cannot be justified strictly on economic terms must demonstrate overriding resource or social concerns. District Grazing Advisory Boards will have a more active role in the decisionmaking.

c) Issues

One issue related to the transfer of maintenance responsibilities is how much maintenance a livestock operator should assume if the improvement also provides benefits other than to livestock management. The Bureau's position is that if the improvement is primarily for the benefit of livestock, the operator should assume maintenance costs. Primary benefits are defined as 50 percent or more of the benefits received. A final rangeland improvement policy, to be issued in FY 83, will clarify procedures for determining who should assume main-

tenance responsibilities and when cost-sharing between the Bureau and a beneficiary is more equitable.

d) Budget and Performance Analysis (Range Improvement)

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors, District Managers

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	13,117	13,226	11,200

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	12,326	9,419	11,200
Work Years	226	153	135

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Developed			
Water Facilities	779	872	930
Miles of Fence	690	509	720
Management Facilities	159	169	100
Projects Surveyed & Designed	1,828	2,888	1,315
Maintained			
Water Facilities	1,978	1,698	1,300
Miles of Fence	724	433	300
Management Facilities	166	115	50

D.3. SOIL, WATER, AND AIR

a) Program Description

Protection and management of the soil, water and air resources of the public lands are basic responsibilities of BLM and are central to both the short-and

long-term objectives of BLM programs. Increased environmental awareness and concern for these resources resulted in several new laws and executive orders in the last decade, among them the Federal Water Pollution Control Act Amendments, Safe Drinking Water Act, Clean Water Act, Colorado River Salinity Control Act, Clean Air Act, and the National Environmental Policy Act.

The program conducts soil and water inventories and supports studies and research of water quality and quantity, air quality, erosion, and watershed practices to improve the effectiveness of BLM's management of the soil, water, and air resources associated with public lands. Soil and water inventory data provide much of the resource information needed for multiple use planning and preparation of environmental impact statements and assessments. Soil surveys help determine soil-vegetative relationships, which are used to develop guidelines for rangeland management. Soil surveys also provide the basic data for range resource inventories. These data also contribute to successful operation of other BLM programs, such as energy development or recreation. BLM inventories and monitors climate, meteorology and air quality to support multiple-use planning, prescribed burning, rangeland management, energy and mineral leasing, and other resource programs.

b) Progress Report

In the past fiscal year, 12.5 million acres of soils were inventoried. Almost 12 percent of the total workload necessary to identify and quantify water use is now complete. The Bureau will share this information with states to help them identify what water sources on public lands are available for appropriation under state water law.

The Bureau has taken steps to comply with a Department of the Interior's Solicitor's opinion issued in September 1981 holding that the Bureau must file for use of nonreserved water located on public land under state law, similar to other public and private claimants. A policy statement to clarify BLM actions to be taken under the opinion was issued last December. Related sections of the BLM Manual have been revised.

The BLM's air resource program supports the National Acid Precipitation Assessment Program by operating acid rain monitoring stations at remote locations in nine western states. These stations are providing data essential for the development of national acid precipitation maps to determine the trends and possible impacts of acid deposition in the western U.S.

c) Issues

The new water rights policy has created concern among environmental/conservation groups and in some states. Under most state water laws, first priority for water use is given to purposes defined as beneficial uses, such as mining and agriculture. Not all states recognize wildlife as a beneficial use. The Bureau is working with individual states to resolve potential use conflicts.

Air quality issues primarily center on energy and minerals lease activity and on the Clean Air Act requirements for the Prevention of Significant Deterioration of air quality and the impairment of visibility in Class I areas (e.g., National Parks and Wilderness areas). How increments of allowable air quality deterioration are allocated can influence the future industrial development within a state, particularly energy and mineral development. For environmentally balanced development of energy and mineral resources on public lands, an adequate share of the air quality increment must be available for future development. Currently, states allocate air quality increments, on a first-come, first-served basis. Therefore, BLM planning and program activities must coordinate with states to assure that future energy and mineral development potential is properly considered by the state.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: District Managers

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	22,073	17,042	16,956

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	20,599	16,648	16,956
Work Years	397	322	293

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Millions of acres inventoried.....	18.9	35.1	27.3
Studies conducted	455	569	145
Water use identification and quantification.....	5,929	1,692	1,700

D.4. FOREST MANAGEMENT

a) Program Description

Approximately 90 million acres of the land under BLM's jurisdiction is forest land. Most of this (64 million acres) is in Alaska where timber development has been deferred until State selection, native claims, withdrawals, and other dispositions are completed. At present, most of the land in Alaska is difficult to harvest because of the lack of transportation and distance to markets. Of the remaining 26 million acres of forest land outside of Alaska, 5 million acres are capable of producing high quality commercial timber in quantities sufficient to warrant intensive management.

The remaining 21 million acres, called "woodlands," are covered with open-grown stands of widely scattered trees. Historically, these lands have not been considered valuable as a commercial wood source, although they do produce posts, poles, Christmas trees, and fuelwood. Woodlands are often managed less intensively than commercial timber lands. They are managed for a variety of values including wood products, livestock forage, wildlife habitat, recreational uses, watershed protection, and minerals.

By far the most commercially valuable of the timber lands managed by BLM are the 2.4 million acres in western Oregon known as the "Oregon and California (O&C) railroad grant lands" and the "Coos Bay Wagon Road (CBWR) grant lands." They were originally granted to private ownership in the 1800's for railroad and wagon road development but were returned to the Federal government when the developers failed to meet the terms of their land grants. Among the most productive forests in the country, these lands produce about 91 percent of the total board feet annually harvested from BLM forests. The timber produced on BLM lands outside of western Oregon is important to many small western communities, although it is not significant nationally.

b) Progress Report

BLM is currently updating land use and timber management plans for the 5 million acres of commercial timber lands within its jurisdiction. This process includes the preparation of Environmental Impact Statements (EISs) for the major forested areas in western Oregon, northern California, and northern Idaho. The status of the EISs in progress is as follows:

EIS Status	
North Idaho	Decision Document Released
Ukiah, CA	Decision Document Released
Coos Bay, OR	Draft Decision Released
West Salem, OR	Final Timber EIS Released
East Salem, OR	Draft Timber EIS Released
Roseburg, OR	Draft Timber EIS Released
Eugene, OR	Scoping Completed

Decision documents for all O&C lands in western Oregon will be issued in FY 83. This will complete a new 10-year forest land management plan. A new allowable cut level will be developed by the start of FY 84.

BLM continued its program to increase sales of logging residue and small salvage sales. Over 200 tracts totaling approximately 58 million board feet (MBF) were offered for sale in FY 82.

c) Issues

Proposals to set aside timberlands for purposes that do not allow logging and consequently reduce the timber harvest continue to be a major issue. While BLM expects this issue to be raised over and over as land use plans are developed, current controversy is focused on the timber management plan for the Coos Bay District in Oregon. BLM, through its planning process, has developed and analyzed a range of alternative land use allocations with resulting timber harvest levels both above and below the current level. A draft decision document has been released for public review. The proposal therein would increase timber sales by 14 percent to a new harvest level of 266 MBF.

The use of chemical herbicides as a management tool continues to be an issue, especially in western Oregon where appeals and legal actions are affecting implementation of vegetation management programs.

Because of the depressed lumber market and unusually high bidding on timber sales in 1979, 1980, and 1981, the Secretary declared that timber sale contracts executed prior to October 1, 1982, will not expire until December 31, 1983. Approximately 2.4 billion board feet of timber sold at a price of nearly \$740 million are affected. Purchasers of the affected timber continue to seek relief in the form of contract time extensions and no-penalty contract terminations. In the meantime, new regulations to encourage timely harvest and less speculative bidding have been implemented to avoid a recurrence of this situation. Factors considered during the development of the new regulations included fairness to all bidders, discouragement of speculative bidding, flow of income to the O&C counties, and disruptive effects of delayed harvest on BLM's reforestation program.

Another issue is funding of the forest management program on the O&C and CBWR lands. In FY 82 Congress provided a direct appropriation of \$52,788,000 for the O&C appropriation. A direct appropriation is also being requested for FY 83. This approach will eliminate the difficulties in projecting appropriation levels as a result of economic fluctuations and permit more orderly program planning and management of the lands in western Oregon.

Demand has increased dramatically for fuelwood from all forest lands, both for personal and commercial use. In many areas, improved inventories and economic, social, technological, and environmental studies are needed before program expansion can be effectively administered.

d) Budget and Performance Analysis: Forest Management (O&C)

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: Oregon State Director, District Managers, Salem, Eugene, Coos Bay, Roseburg, and Medford, Oregon

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	34,476	37,245	45,320

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	32,208	31,689	45,320
Work Years	1,160	853	786

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Timber Sold (MBF)	1,083,200	1,093,345	1,116,300
Acres Reforested	28,240	20,052	18,000
Land Treatment (acres)	-	43,445	45,000
Site Preparation	-	23,227	23,000
Protection	-	10,690	10,000
Release	-	9,528	12,000
Thinning (acres)	4,093	12,600	12,000

e) Budget and Performance Analysis: Forest Management (Management of Lands and Resources)

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors, District Managers

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	8,375	8,263	5,642

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (000s)	9,310	8,138	5,642
Work Years	246	232	145

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
MBF Timber Sold	99,098	100,800	92,000
Acres Reforested	2,181	1,676	2,500
Land Treatment (acres)	-	1,210	2,475
Site Preparation.....	-	666	1,735
Protection.....	-	502	300
Release.....	-	42	440
Thinning (acres)	1,767	532	1,000

D.5. WILDLIFE

a) Program Description

The Bureau of Land Management manages extensive and diverse habitat for hundreds of wildlife species. These resources are prized for their recreational, scientific, educational, social, economic, cultural, subsistence, and esthetic values. Some 68 federally listed threatened and endangered plant and animal species have been identified on the public lands. Endangered species legislation, passed in the late 1960s and 1970s, added a new dimension to management of the Nation's wildlife by providing a means for conserving and managing ecosystems essential to plants and animals in danger of extinction.

Working with state wildlife agencies, BLM carries out its mission of managing fish and wildlife habitats on the public lands by ensuring that wildlife needs are considered in all land-use planning and decisionmaking. BLM has executed memoranda of understanding and numerous cooperative agreements with 14 western states and seven states in the East. To summarize these arrangements, the states are responsible for wildlife population management, while BLM is responsible for managing the habitat on public lands. By protecting and improving habitat on public lands, BLM helps compensate for population losses caused by declining habitat on private lands. The interdependence of habitat and population management makes the close coordination between BLM and states a critical element in BLM's wildlife management program.

The Federal Land Policy and Management Act (FLPMA) recognized wildlife as one of the principal uses of the public lands. It also further increased BLM's authority, as well as its responsibility, to manage, protect, and enhance wildlife resources. Since the passage of FLPMA in 1976, BLM has increased its effort to inventory, plan for, and implement on-the-ground management and use of terrestrial and aquatic wildlife habitat.

b) Progress Report

Special attention in 1982 was focused on several key wildlife management activities, among them are:

- *Inventory and Planning* Streamlined inventory and data analysis techniques for threatened/endangered and other wildlife species and focused data collection on those BLM lands where critical issues or potential conflicts are the greatest. Inventory efforts have been shifted from extensive to intensive.

- *Monitoring* Initiated directives to establish coordinated renewable resource monitoring programs for evaluating the effectiveness of management actions. Initiated procedures for streamlining the monitoring process by focusing in areas where: (1) management decisions are being implemented, or (2) information is needed to resolve significant resource management issues or conflicts. Monitoring is aimed at resolving significant issues with other activities such as energy development, grazing, and rights-of-way.

- *Endangered Species Act (ESA)* Worked with the FWS to streamline the ESA Section 7 consultation process to ensure timely threatened/endangered species clearance on energy related projects.

- *Habitat Improvement* Continued cooperation with State wildlife agencies to ensure conservation and rehabilitation of wildlife habitat under the Sikes Act and FLPMA authority.

- *Endangered Species Recovery* Cooperated with State and Federal wildlife agencies and organizations to provide habitat for the release of captive-reared peregrine falcons. Worked cooperatively with FWS and State of Wyoming in developing and implementing studies to determine effects of oil and gas development on the endangered black-footed ferret. Also assisted in developing new inventory techniques.

c) Issues

The wildlife program needs to further concentrate and streamline its coordination with other Bureau programs. This will ensure that managers have the most complete and comprehensive wildlife information when making multiple-use resource decisions.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: District Managers

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	20,193	14,918	15,126

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	18,901	14,688	15,126
Work Years	480	382	330

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Millions of acres inventoried.....	35.3	27.2	15.5
Miles of Stream inventoried ..	2,551	8,150	300
New HMPs prepared and revised	101	124	30
Thousands of acres of wildlife habitat improved....	6.3	1,506	1,400
Miles of stream habitat improved.....	400	2,996	2,900
Millions of acres of wildlife habitat maintained	-	0.9	1.0
Miles of stream habitat maintained.....	-	3,398	3,500
Millions of acres monitored...	-	1.8	20.7
Miles of stream habitat monitored	-	1.8	1.0

D.6. WILD HORSE AND BURRO MANAGEMENT

a) Program Description

The protection, management, and control of wild horses and burros on public lands administered by BLM were entrusted to the Secretary of the Interior¹ by the Wild Free-Roaming Horse and Burro Act

¹ The Forest Service through the Secretary of Agriculture shares in the responsibility. However, 95 percent of the animals are on BLM administered lands.

of 1971. The Act has been amended by provisions contained in the Federal Land Policy and Management Act of 1976 and the Public Rangelands Improvement Act of 1978. The amendments significantly improved and strengthened BLM's management capabilities.

The 1976 amendment allowed the use of helicopters and motorized vehicles for removing excess animals. Prior to that, capture operations were slow, dangerous, and costly. The 1978 amendments were much broader in scope and focused on improving management through research and consultation; establishing priorities for removal and disposal of excess animals; and strengthening the adoption process. For the first time, adopters of excess animals were given the opportunity to acquire ownership of the animals through transfer of title by the government.

Based on the legislative mandates, BLM's wild horse and burro program objectives are:

1) To preserve wild free-roaming horses and burros on public lands as symbols of our heritage and to enhance the diversity of life forms;

2) To protect wild free-roaming horses and burros from illegal capture, branding, harassment, or death;

3) To manage wild free-roaming horses and burros as components of the public lands in a manner that maintains or improves the rangeland ecosystem; and

4) To provide humane care and proper treatment of wild horses and burros.

b) Progress Report

In fiscal year 1982, removal and adoption of excess wild horses and burros remained of primary importance within the program. Approximately 7,200 wild horses and 2,100 wild burros were captured and removed from public lands during the year, bringing population levels near management objectives in several states.

A new adoption fee policy establishing fees of \$200 per horse and \$75 per burro, plus transportation costs (if any), was implemented on January 2, 1982. These fees were designed to reimburse a portion of the costs of operating the Adopt-A-Horse Program, which averaged \$373 per animal in fiscal year 1981.

Although the higher fees did affect adoption demand, increased publicity efforts, a new year-round adoption center, and increased use of temporary "satellite" adoption centers in various parts of the country enabled BLM to place more than

4,200 wild horses and burros in private maintenance under the increased fees. The new contract adoption center, opened in July in Lewisberry, Pennsylvania, (near Harrisburg), makes animals more readily accessible to residents of the Northeastern and mid-Atlantic States.

More than 6,300 certificates of title were awarded in fiscal year 1982 to adopters who had provided humane care and proper treatment for their animals for at least one year. An increasing number of adopters are applying for titles to their animals, thereby decreasing BLM's compliance and record-keeping costs.

BLM is in the process of streamlining adoption, compliance, titling, and application procedures to reduce program costs. Several private organizations interested in wild horse and burro management have responded to BLM's request for suggestions to improve the cost efficiency of the Adopt-A-Horse Program. Efforts will continue in FY 83 to place healthy excess wild horses and burros in humane foster homes by the most cost-effective means possible.

Fieldwork for the National Academy of Sciences (NAS) designed wild horse and burro research ended during the year, with written reports scheduled for completion in September. The final NAS report to BLM and the Forest Service was due October 31, and the Agencies are scheduled to file a joint report to Congress on the research by January 31, 1983. Subjects studied during the 3-year effort were wild horse and burro demography, census methods, habitat preference and use, food consumption rates and nutrition, and vegetation response to grazing.

c) Issues

Public concern continues to focus on three issues:

1) decisions on how many wild horses and burros will be managed on public lands and the number of excess animals that must be removed;

2) the disposition of excess animals; and

3) the cost effectiveness of the removal and adoption program.

Litigation on removal of straying wild horses and burros from private land upon the landowner's re-

quest is another issue for individuals owning unfenced property adjoining public lands. In FY 82, two additional lawsuits were filed and three prior lawsuits remained unsettled on this issue.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	7,946	5,688	6,472

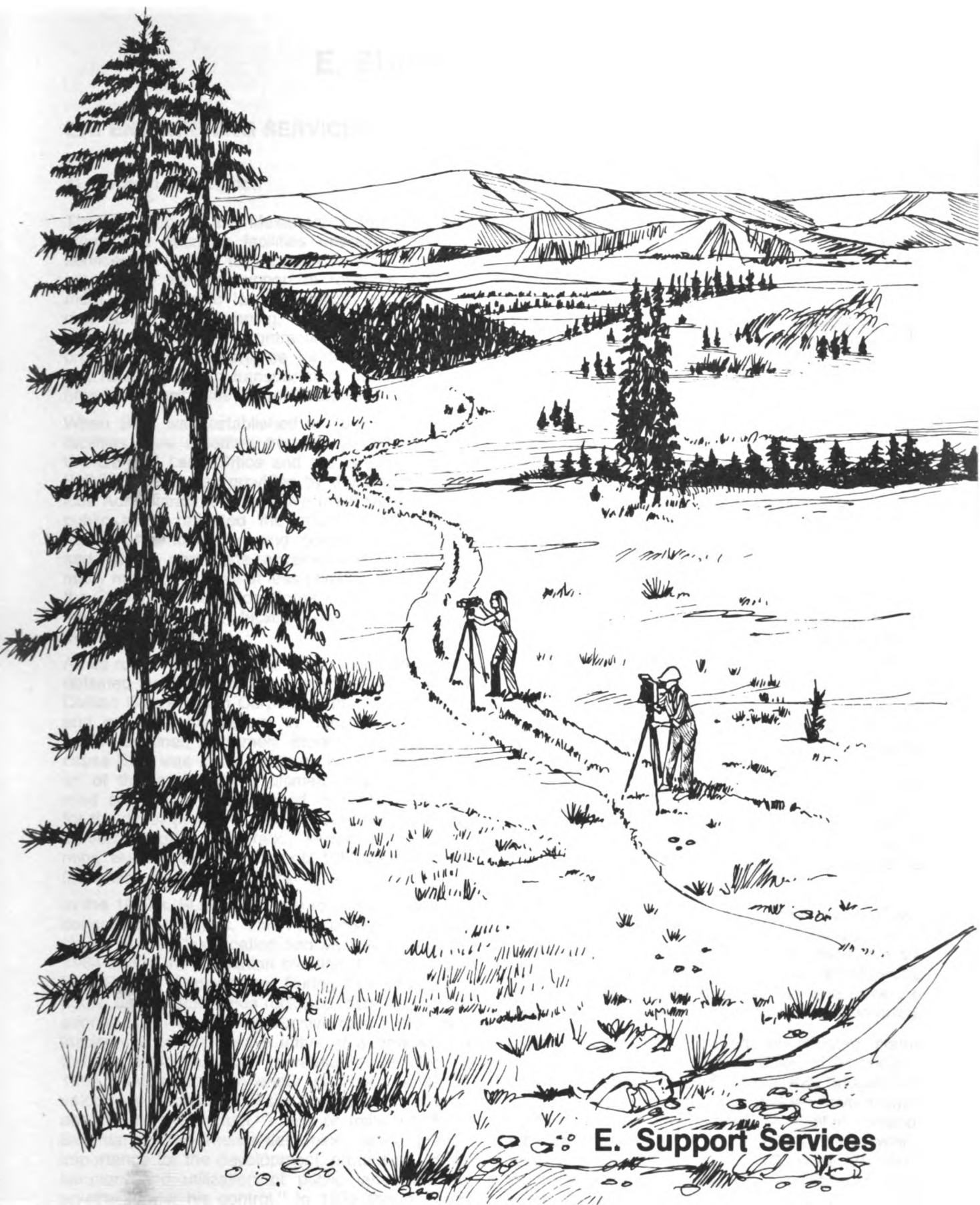
3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (000s)	7,815	5,620	6,472
Work Years	224	167	143

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Million of Acres Inventoried ..	22.2	16.4	9.0
Number of Adoption Centers	14	16	15
Number of Animals Adopted	10,150	7,250	5,200
Number of Herd Management Area Plans developed	9	11	12
Number of excess animals removed from Public lands	*12,000	9,350	9,100
Number of compliance checks (adopters)	1,860	1,200	280

*Includes 600 branded and claimed domestic horses.



E. Support Services

E. SUPPORT SERVICES

E.1. ENGINEERING SERVICES

a) Program Description

The Construction and Maintenance Programs construct and maintain facilities needed to provide services for visitors to the public lands. These programs also provide support to resource management of the public lands including all phases of new construction/planning, environmental analysis, survey, design, and contracting operations; and provide timely maintenance for BLM owned building, recreation, and transportation facilities. These broad responsibilities are relatively new.

When BLM was established in 1946, its physical facilities were inherited from its parent agencies, the General Land Office and the Grazing Service. Building space was provided by the General Services Administration. A primitive road system on the public lands reflected the miscellaneous access needs of ranchers, mining companies, railroads, and county and state governments. In addition, many miles of somewhat less primitive road built by the Civilian Conservation Corps in the 1930's were inherited. Recreation facilities were nonexistent or at best, very primitive.

As its role in managing the public lands grew, BLM obtained facilities from other agencies, such as the Civilian Conservation Corps and the various states and counties. Investment in construction on the lands remained extremely modest, however, because BLM was still considered an interim custodian of the land pending ultimate disposition. New road construction was limited to those necessary for the development of timber resources in Oregon, California, Idaho, Colorado, Montana, and Wyoming. Building construction until 1963 was limited to firefighting facilities in Alaska.

In the 1960's, BLM's custodial role gave way to the concept of retention. The new policy was stated clearly in the Classification and Multiple Use Act of 1964 and in the legislation creating the Public Land Law Review Commission. During this same time, public use of BLM lands rocketed, especially recreational use. The existing primitive road system was inadequate for the heavy influx of a new kind of traffic/automobiles and recreational vehicles. In 1964, contract authority under the Public Lands Development Roads and Trails Appropriation empowered BLM to construct "roads or trails which the Secretary of the Interior determines are of primary importance for the development, protection, administration, and utilization of public lands and resources under his control." In 1978 this appropriation was dropped and replaced by a transportation

construction portion in BLM's regular Construction and Maintenance Appropriation.

Recreation facilities, including sanitary facilities, picnic tables, fire rings, well-water supplies, and visitor service facilities were also constructed to accommodate some of the roughly 70 million annual visitors who camp, hike, picnic, hunt, fish, raft, rock-hound, or drive recreational vehicles on the public lands.

By 1967, BLM had begun to construct its own office buildings, warehouses, shops, and other facilities tailored to BLM's resource management responsibilities. Although BLM continues to obtain most of its building space from the General Services Administration, rapid growth and the shortage of facilities available for lease, especially in remote locations, often force BLM to construct its own. Specialized structures such as telecommunication buildings at remote locations, well pumping buildings, seed storage bins, greenhouses, and warehouses are also frequently built to order.

b) Progress Report

In fiscal year 1982, BLM completed construction of six buildings. Construction of one other building was started but not completed in FY 82.

Maintenance was provided to 579 structures, including office buildings, warehouses, shops, storage buildings, fire stations, lookouts, and related facilities such as parking areas. Special emphasis will continue to be placed on corrective maintenance and retrofit for energy conservation. The maintenance program has emphasized the reduction of fuel consumption through such measures as the installation of storm windows and doors and the addition of insulation.

During FY 82, BLM completed construction of two bridges, and two sections of road. BLM performed maintenance on approximately 8,750 miles of road, 215 miles of trail, and 10 bridges, emphasizing those that receive the greatest use and have the highest erosion potential if maintenance is deferred.

During 1982, BLM obtained an updated status report on the number and condition of its bridges. This report showed that BLM has 625 bridges and major culverts. It also showed that we have mitigated 97 of 102 identified hazards. In addition, unfunded maintenance and/or replacement needs, which totaled \$2,556,000 as of 6/1/82, were identified. 110 Transportation construction, with the exception of timber access roads, has been at a low level pending completion of resource management plans

and wilderness reviews. It is not anticipated that the completion of these plans will change the transportation construction and maintenance programs.

During FY 82, phased construction continued on three recreation sites. BLM has identified other planned projects throughout the West and in Alaska, including visitor centers, sanitary facilities, cave protection work, campsites, and information stations. Recreation facility maintenance in FY 82 involved minimal work at approximately 1,000 undeveloped sites (sites without water) and at 436 developed campsites containing varying numbers of individual sites. In addition, more than 180 hazards were removed or mitigated such as filling abandoned mine shafts, removing dead trees, or barricading cliffs to improve visitor safety.

c) Issues

As BLM's program responsibilities expand to keep pace with public interest in and use of its lands, construction and maintenance become increasingly pressing concerns. Lack of office and storage space are often recurring problems. Because there is no provision for acquiring or constructing facilities on the basis of projected rather than existing need, the availability of facilities may lag behind the need for them and "temporary" structures may be used (mobile home type units) to offset space shortages. In spite of these problems, BLM increasingly emphasizes its maintenance responsibilities as the intensity of public use of its facilities increases.

Increasing use of BLM roads and trails results in erosion problems because few BLM roads were designed for present use levels or for passenger vehicles. Poor drainage control can result in a soil loss of as much as 100 tons per mile of poorly surfaced road each year and many of these roads can only be used seasonally. Of the 64,000 miles of existing road, 20,000 are primitive and their primitive character can be hazardous to visitors accustomed to the highly developed roads in urban areas.

BLM constructs and maintains its transportation system to support its own resource management objectives, and does not construct public roads. However, as population pressures increase, so do demands for BLM to construct and maintain its roads to state and county road standards, or in other terms to construct public roads. To meet such demands the only option is to transfer some roads out of BLM authority to local public road authority, an action usually not favored by local authorities because of the responsibility and cost of improving and maintaining the roads.

Considering the need for recreation facilities (in 1978 it was estimated that existing facilities accommodated less than 15 percent of demand) BLM

constructs and maintains a very modest number of functional facilities for use by the general public. Particular problems relating to high visitor use occur in the California Desert, along the Colorado River between California and Arizona, in caves in New Mexico, in the El Malpais areas of New Mexico, in the Little Sahara sand dunes in Utah, and on the upper Missouri River in Montana. Current plans are to pace new construction with the completion of resource management plans to ensure that BLM is fully prepared to deal with increased use that follows increases in visitor service facilities.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: District Managers

2) Funding

FUNDING		1981 Enacted	1982 Enacted	1983 Proposed
BUILDING CONSTRUCTION				
Appropriation (\$000s)		1,461	544	258
RECREATION CONSTRUCTION				
Appropriation (\$000s)		684	607	460
TRANSPORTATION CONSTRUCTION				
Appropriation (\$000s)		2,041	679	0
BUILDING MAINTENANCE				
Appropriation (\$000s)		2,631	2,782	3,357
RECREATION FACILITIES MAINTENANCE				
Appropriation (\$000s)		3,559	3,298	3,751
TRANSPORTATION MAINTENANCE				
Appropriation (\$000s)		2,550	2,568	3,082
ENGINEERING SERVICES				
Appropriation (\$000s)		-	-	982

3) Program Obligations

PROGRAM OBLIGATIONS		1981 Enacted	1982 Enacted	1983 Proposed
BUILDING CONSTRUCTION				
Dollars (\$000s)		411	260	258
Work Years		20	9	0
RECREATION CONSTRUCTION				
Dollars (\$000s)		630	512	460
Work Years		12	6	0

PROGRAM OBLIGATIONS—Continued

	1981 Enacted	1982 Enacted	1983 Proposed
TRANSPORTATION CON- STRUCTION			
Dollars (\$000s)	2,133	640	0
Work Years	48	17	0
BUILDING MAINTENANCE			
Dollars (\$000s)	2,516	2,871	3,357
Work Years	56	55	59
RECREATION FACILITIES MAINTENANCE			
Dollars (\$000s)	3,664	3,175	3,751
Work Years	93	71	79
TRANSPORTATION MAIN- TENANCE			
Dollars (\$000s)	2,465	2,695	3,082
Work Years	52	44	46
ENGINEERING SERVICES			
Dollars (\$000s)	-	-	982
Work Years	-	-	25

4) Performance

PERFORMANCE

Work Units	1981 Actual	1982 Actual	1983 Planned
BUILDING CONSTRU- TION			
Project Survey & Design (number)	24	2	3
Construction (number)	10	6	4
RECREATION CON- STRUCTION			
Project Survey & Design (number)	5	2	2
Construction (number)	8	2	2
TRANSPORTATION CON- STRUCTION			
Project Survey & Design....			
1)Bridges (number).....	16	3	0
2)Roads (miles)	84	0	0
Construction			
1)Bridges (number).....	1	2	0
2)Roads (miles)	48	35	0
BUILDING MAINTANANCE			
Buildings (number)	579	579	579
RECREATION FACILITIES MAINTENANCE			
Hazard Reduction (number)	200	180	180
Recreation Buildings (number)	2,136	1,436	1,436
TRANSPORTATION MAIN- TENANCE			
Roads (miles)	9,085	8,750	8,750
Inventory (miles)	1,763	1,200	500

E.2. GENERAL ADMINISTRATION

a) Program Description and Progress Report

General Administration includes certain fixed costs such as rent and telephone, as well as executive direction and the following functions in Washington and at the Denver Service Center: personnel management, employee and visitor safety, administrative services, evaluation, and management research. Evaluations and audits are discussed in the following section, E.3.

1)Personnel and Training

During FY 82, the Division of Personnel and Training continued its efforts to support field offices in their revised roles and responsibilities brought about by reorganization and changes in delegation of authority. These efforts were designed expressly to assist managers to be more responsive to administration thrusts while complying with applicable Federal personnel management regulations. The following specific actions were taken in this regard in FY 82:

- Developed a comprehensive classification guide for District Manager positions based on program complexities and supervisory/management responsibilities;
- Issued and implemented a new Merit Promotion Plan for Bureau offices;
- Developed numerous model position descriptions to ensure consistency in assigning title, series, and grade level to sensitive field positions; and
- Provided assistance to State Offices with newly delegated personnel authority in order to alleviate procedural and program difficulties encountered in starting state level programs.

Prior to FY 82, management positions were classified in the 401 series, general biological miscellaneous. This classification precluded persons in the physical sciences from competition for management positions such as Area or District Manager. In FY 82 management positions were reclassified into the 301 series, which is a general miscellaneous series meaning anyone with a professional degree qualifies. This change significantly increased the career options for employees in the energy and mineral programs.

2) Employee and Visitor Safety

Reduction of accidental loss is vital to the accomplishment of the Bureau's mission and to its public service commitment. Bureau management officials are committed to a dynamic occupational safety and health program for BLM employees and to the safe enjoyment by the public of the Nation's public

lands. Field offices during FY 82 continued their occupational hygiene surveys and "job hazard analyses" to identify and abate environmental hazards and unsafe work practices. In FY 82 the downward trend in accidents continued.

3) Administrative Services

Procurement, property and space management, printing, directives, and forms management fall under the responsibility of the Division of Administrative Services.

The support of public land management efforts requires 4.9 million square feet of improved real property. Of this, BLM has direct jurisdiction over 1.7 million square feet of space. BLM employs the open space concept of space arrangements wherever possible to improve space allocation and provide flexibility.

Executive Order 12348, signed by the President on February 25, 1982, established the Asset Management Program to review the continuing need for all improved and unimproved Federal real property. A three-phase approach was established by the Department to review improved real property. Phase I involved real property already identified as excess to Bureau program needs. Three BLM installations have already been reported excess to GSA. Phase II included Federal real property in close proximity to established population centers. Twenty BLM properties were reported to the Department in response to Phase II. Phase III, a comprehensive utilization review of all Bureau real property not already reported as excess to GSA, is scheduled to be completed in November, 1982.

Efforts to reduce automotive fuel consumption in BLM's fleet of 3,296 GSA-assigned and 1,600 BLM-owned vehicles continues. During FY 82 BLM employees drove 41 million miles, a decrease of 2.5 million miles (5.7 percent) from FY 81. BLM-owned vehicles consist of 43.6 percent compacts. BLM has 485 fewer general purpose vehicles (10.7 percent) in the fleet than during July 1981.

Measures to reduce administrative costs and burdens were emphasized in FY 82. Accomplishments include securing authority to acquire automated photo-typesetters for two State Offices. This equipment, working in harmony with word processing systems, could save up to \$150,000 per year in printing costs. Consolidated contracting for printing stationery, signs, and planning documents should save about \$50,000 in printing and distribution costs. Studies of the Bureau's forms and publications warehousing operation in Denver have produced recommendations for better inventory management ordering and distribution practices which will save \$50,000 or more per year in operating costs. Studies of photocopying operations in three

field offices produced recommendations which could save \$30,000 per year. A total property reclassification project simplified the property accountability system by deleting 29,000 items in 85 classes (25 percent reduction). These items will no longer be controlled by individual property numbers. The frequency for property inventories was also reduced to once every two years. These two changes considerably reduced administrative work time, while retaining needed controls.

During FY 82, BLM spent \$98.7 million for goods and services including \$30.9 million awarded by the Washington Office mainly for the OCS Environmental Studies Program. Formal contracts awarded by the Denver Service Center and Oregon State Office to support field programs totaled \$28.2 million. Field offices expended an additional \$39.6 million, mostly for small purchases.

In BLM's support of various socioeconomic programs, BLM has established aggressive goals and exceeded them all.

FY 82 Goals and Achievements (\$ Millions)

	Goal	Actual Contract Awards
Minority Business Awards	\$3	\$5.1
Labor Surplus Area Setasides	4	9.8
Small Businesses	30.7	37.8
Women Business Enterprises	.6	1.4
Historically Black Colleges	0	0.5

4) Management Research

The Division of Management Research analyzes and directs the implementation of organization and management systems. Efforts have been made to develop organizational structures and management systems which provide for responsive decisionmaking at the field level. The Division reviewed field office organizations and analyzed the way authority is delegated. As a result of these efforts, the Bureau has been able to decentralize functions and delegate organization change and personnel management authority to the States. In addition to emphasis on the field office organization, the Division of Management Research has devoted attention to a reorganization and realignment of energy and minerals functions in the Headquarters Office and an analysis of the management and direction of the Bureau's Training Program.

b) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Administration

Field Administrators: Delegations vary between different functions and within the same function so that a general identification of field level administrators is not possible.

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	5,664	77,180	75,182

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	8,580	76,832	75,182
Work Years	343	1,312	1,068

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Process payroll documents (000s) of actions to process T/A reports, W-2's and the various entries which are part of payroll such as deductions bonds, etc.....	2,000	2,000	2,000
Process billing & payments documents (000s).....	175	-	-
Process personnel actions (#)	*55,000	59,274	54,000
Award negotiated contracts (#)	649	729	-
Award formally advertised contracts.....	51	42	-

*We estimated that over 50,000 personnel actions would be processed yearly because the automated payroll/personnel system requires input of all types of personnel actions, including conversions to/from full-time permanent, leave-without-pay, return-to-duty, changes in pay, etc.

E.3 EVALUATIONS/AUDITS

The Bureau's Division of Program Evaluation in the Headquarters Office, conducts internal evaluations of Bureau programs, general management, and special issues. The U.S. General Accounting Office (GAO) and Interior's Office of the Inspector General

(OIG) conduct audits of various Bureau programs or functions.

A. Internal Bureau Evaluations

In FY 82, the Division of Program Evaluation conducted two General Management Evaluations, one program evaluation and two special evaluations. The Division also worked with individual states to help them develop their evaluation programs. The following lists the evaluations conducted in FY 82 by the Division.

Utah General Management Evaluation, September 1982

Alaska General Management Evaluation, August 1982

Public Domain Forestry Special Evaluation, March 1982

International Relations Program, May 1982

Oil and Gas Leasing Special Evaluation, February 1982

B. GAO Audits

The General Accounting Office issued 18 final reports in FY 82 affecting the Bureau of Land Management. A list follows:

Interior's Oversight of OCS Wells Shut-In or Flaring Need Not Include the Reporting, EMD-82-17, 10/23/82.

The Federal Government Should Encourage Early Public, Regulatory, and Industry Cooperation in Siting Energy Facilities, EMD-82-18, 12/81.

Pitfalls in Interior's New Accelerated Offshore Leasing Program Require Attention, EMD-82-26, 12/29/81.

Numerous Issues Involved in Large-Scale Disposals and Sales of Federal Real Property, CED-82-18, 12/81.

Developing Alaska's Energy Resources: Actions Needed To Stimulate Research and Improve Wetlands Permit Processing, EMD-82-44, 6/17/82.

Outlook for Achieving Fiscal Year 1983 Offshore Revenue Estimates Possible but not Likely, EMD-82-83.

The Office of Management and Budget's Influence in Redesigning the Interior Department's Offshore Leasing and Development Program, EMD-82-93.

Improvements Needed in the Cash Management Practices of Interior's Simultaneous Oil and Gas Leasing Program in Wyoming, EMD-82-122.

Interior's Minerals Management Programs Need Consolidation to Improve Accountability and Control, EMD-82-104, 7/28/82.

Data Compiled for Shut-In Oil and Gas Wells on Onshore Federal Lands is Inaccurate and Probably Unnecessary, EMD-82-115, 9/21/82.

Review of the Trans-Alaska Pipeline Liability Fund's Financial Statements for the Year Ended December 31, 1981, AFMD-82-108.

Possible Effects of Increased Royalty Rate for Federal Onshore Oil and Gas Leases, EMD-82-124, 9/3/82.

Streamlining and Ensuring Mineral Development Must Begin at Local Land Management Levels, EMD-82-10, 12/4/81.

Accelerated Onshore Oil and Gas Leasing May Not Occur As Quickly As Anticipated, EMD-82-34, 2/8/82.

Illegal and Unauthorized Activities on Public Lands—A Problem With Serious Implications, CED-82-48, 3/10/82.

Status of Federal Agencies' Implementation of the Alaska National Interest Lands Conservation Act, CED-82-74.

Effects of Increasing Filing Fees for Noncompetitive Onshore Oil and Gas Leases, EMD-82-67.

Cooperative Leasing Could Increase Competition, Revenues, and Production from Federal Coal Leases in Western Checkerboard Lands, EMD-82-72, 4/28/82.

C. OIG Audits

The Office of the Inspector General issued 9 final reports affecting the Bureau of Land Management. They are listed below:

Survey of Law Enforcement, Investigative, Audit and Program Evaluation Activities, MO-12-81(a), 10/7/81.

Review of Motor Vehicle Fuel Management, BLM, W-LW-BLM-04-81, 9/30/82.

Review of the Management and Accountability for Firefighting Equipment and Supplies, BLM Alaska, W-LW-BLM-02-81, 12/31/81.

Survey of Debt Collection 10/29/81.

Fire Suppression, 12/22/81.

Review of Small Purchases Made by the BLM Using SF 44, C-LW-BLM-07-81, 3/82.

Review of Imprest Funds in the Department of the Interior, E-MO-MOA-14-82, 3/82.

Property Management Evaluation of the BLM, E-MO-MOA-09-82(b), 3/82.

Evaluation of Management Control Questionnaire for the Procurement Function, 4/14/82.

E.4. LAW ENFORCEMENT

a) Program Description

A law enforcement effort on the public lands began shortly before the passage of FLPMA. The Wild Free Roaming Horse and Burro Act of 1971 provided basic authority for the hiring of BLM's first special agents. Amendments to the Sikes Act of 1974 and other subsequent special acts added additional authority in specified areas. But it was the passage of FLPMA that gave BLM general law enforcement authority covering all its lands.

The legal jurisdiction on the public lands is proprietary¹ in nature. Therefore, State law also applies to the public lands and their resources.

BLM relies on three separate levels for its total law enforcement program:

1) Special agents, i.e., criminal investigators, who investigate major violations of Federal laws pertaining to the public lands. They are also responsible for total program coordination and liaison with State and local law enforcement officials.

2) Rangers, uniformed employees with law enforcement authority, are assigned only to the California Desert Conservation Area. They prevent violations by providing a high visibility through patrolling the public lands.

3) Cooperative agreements with State and local law enforcement agencies that provide requested law enforcement services.

BLM law enforcement specialists estimate that 85 percent of their work involves crimes against property, including wild horses. Something of the value and diversity of public land resources can be seen in the list of cases which special agents have investigated in the last five years; timber theft, wild horse killing and theft, desert land entry fraud, removal and theft of cactus for commercial use, mineral theft, range arson, destruction of recreation sites, trespass on public lands, removal or defacement of antiquities, and public lands survey marker destruction.

¹having less than absolute and exclusive right

In 1982, BLM employed 17 rangers and 23 special agents, all well-trained in law enforcement. Many of them have degrees in some phase of public land management and all have completed an eight-week police school at the Federal Law enforcement Training Center or its equivalent.

b) Progress Report

A Gresham, Oregon man was found guilty of three theft counts and three counts of damaging Federal Property in a case which may be the largest timber theft prosecution in U.S. history. Sentencing is scheduled for December 15, 1982, and the defendant could be sentenced to a maximum of 10 years in prison and a \$10,000 fine on each of the six counts. The defendant was charged with stealing 677,000 board feet of timber from three parcels of federally owned land. This case was investigated by a BLM Special Agent assigned to the Eugene District Office.

The law enforcement staff of the Eastern States Office assisted in the civil settlement of six unauthorized use coal cases. Collections for damages were received by ESO for three of these cases in the amount of \$524,725.75.

In cooperation with the Denver Service Center Scientific Systems Division, the Eastern States Office law enforcement staff has implemented a surveillance system for Federal mineral ownership areas using Landsat digital data gathered by satellite. The system was developed to reduce field detection time and provide an annual watch over large tracts too vast for effective ground patrol.

Major investigations were initiated regarding:

- Thefts of wild horses from the public lands;
- Thefts of timber;
- Theft of native desert vegetation in the Southwest; and
- Abuse of the wild horse and burro adoption program.

Convictions have been obtained in all these areas and several were precedent setting.

In addition to criminal violations that require law enforcement actions, there are numerous cases of unauthorized use that are not criminal in nature, but are administrative or civil problems. Unauthorized use accounts for nearly 80 percent of all violations of regulations or laws that are used to administer the public lands.

Therefore, BLM has established the Resource Protection Staff to deal with all aspects of violations, either criminal or civil. The law enforcement section is responsible for all civil violations. This arrange-

ment provides for complete integration of the Resource Protection Program in natural resource management as suggested by the Law Enforcement Program Analysis of October 1978.

c) Issues

An increasing area of activity among BLM law enforcement personnel in California and Oregon is assisting local law enforcement officials to eradicate marijuana cultivated on public lands. It has been alleged that during the past ten years, California has become the leading producer of domestic marijuana in the United States. In Oregon the annual marijuana crop is estimated to be worth over \$400 million, with the Oregon State Police estimating that 40-60 percent of the marijuana in southwest Oregon is grown on BLM land. Other states having a relatively large marijuana industry are Washington, Arizona, Idaho, and Colorado. The problem is less significant, but exists nonetheless, in BLM managed areas in all the western states. A coordinated program that includes detection, employee awareness, public awareness, and a law enforcement strategy is being developed. It is believed that a moderately sized detection and enforcement effort, together with an effective public information program, will go a long way towards minimizing the present problem and curtailing the growth of marijuana on the public lands in the future.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: State Directors

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	1,261	1,553	2,050

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	1,247	1,412	2,050
Work Years	24	26	26

4) Performance

Work Units	1981 Actual	1982 Actual	1983 Planned
Cooperative Agreements.....	52	37	46
Cases Reported.....	841	653	653

E.5. FIRE MANAGEMENT

a) Program Description

The Fire Management Program shares with the rest of BLM the broad purpose of protecting and enhancing the resources of the public lands in order to preserve their capability to meet the resource needs of the Nation. More specifically, BLM is responsible for protecting property and natural resource values on the public lands from wildfire; rehabilitating areas damaged by wildfire; and ensuring that "prescribed burning" designed to accomplish a variety of resource management objectives is safely conducted and controlled.

BLM carries out these responsibilities on approximately 380 million acres, including some land administered by other Federal agencies, states, and private parties. It contracts with other Federal, state, and private agencies to protect roughly 6 million acres of this total. Approximately 170 million acres half the total, are in Alaska.

BLM has entered into cooperative agreements on fire suppression with other agencies, and fire suppression resources not being used by BLM are available to the National Park Service, Fish and Wildlife Service, Bureau of Indian Affairs, and the Forest Service upon request. States may also benefit from this arrangement where agreements have been negotiated.

The Boise Interagency Fire Center (BIFC) in Idaho is BLM's only fire support center outside of Alaska. It is the central location for Bureauwide fire training development, fire communications development, fire equipment overhaul, and the fire supply cache. BIFC coordinates project fire (large, complex fires) suppression activities throughout BLM lands in the 11 western states. During periods of extreme fire problem, BIFC also assists other federal fire fighting agencies.

Recent trends show an increase in the number of person-caused fires and a decrease in the acreage burned for two reasons. First, increased use of public lands has raised the incidence of fire, even though fire prevention programs have kept the rate

of this increase lower than the rate of increased use. Second, in 1972, BLM modified its priorities from combating large "disaster" fires and improved both its initial attack capabilities and early fire detection systems. Consequently, most wildfires are now brought under control sooner and the acreage burned is less than in the past.

BLM's plans for carrying out its fire management responsibilities are contained in the Normal Fire Year Planning System developed for each BLM District. In the Normal Fire Year Plan, BLM categorizes all public lands into classes of fire problems. These fire problem classes are based upon historical data of fire occurrence, the value of resources threatened by fire and the estimated behavior of a fire. Operational plans for resolving the fire problem of each class are then developed, tested and evaluated for effectiveness. The final force structure and equipment needs displayed in the plan become the basis for the annual budget. BLM's comprehensive Normal Fire Year Plan was completely updated in 1979.

As techniques for controlling fire have improved, all Federal agencies having wildfire suppression responsibilities have been able to adopt new procedures to use fire as a resource management tool. Prescribed burning is used to enhance wildlife habitat, improve range forage mixes, improve watersheds, improve the visual backdrop, and remove forest harvest residue, as well as many other applications.

b) Progress Report

The 1982 fire season was below average. Less acreage was burned and the numbers of fires were below the five year average. There were 2115 fires in 1982 resulting in 323,406 acres burned. Although a change in weather patterns greatly contributed to this reduced loss, the full implementation of the automated lightning detection system and a move toward the initial attack management system aided firefighters by reducing the time between ignition of a fire and when the crews first arrived at the fire.

BLM's achievements in 1982 were:

- 1) The Initial Attack Management System (IAMS) was tested in Vale, Oregon, with very satisfactory results. This system, which integrates the automatic lightning detection information, the remote weather station information, and fuels information from Landsat, projects a fire ignition and calculates information necessary to properly deploy fire control resources to a fire site. The system was initiated in FY 82 with plans to make it operational in FY 83 and 84.

2) The Alaska Fire Service was established within BLM. This organization provides fire suppression capability for all Federal land administrators within Alaska, including the Native Corporations lands, as required by the Alaska Native Claims Settlement Act. The organizational headquarters is at Fort Wainwright, Fairbanks, Alaska. Field stations are operated during the fire season with control forces deployed near the areas of highest fire potential.

3) BLM began to rebuild obsolete fire apparatus rather than purchase new equipment. The program, which remanufactures equipment in like new condition, depends on commercial suppliers and small contractors to refurbish component parts. BLM then reassembles the units. This program saves more than 22 percent over the purchase of new replacement units.

4) BLM established a Bureauwide aviation management program to reduce aircraft costs and accidents. Managers at the Washington Office provide policy, coordination and guidance, while managers at Boise, Idaho, provide field operational assistance, guidance and direction from that centralized location.

c) Issues

The Secretary ordered BLM to provide fire suppression to all Interior managed lands in Alaska, as well as Native lands as required in ANCSA. In order to provide the interagency service, BLM established the Alaska Fire Service (AFS). AFS protects lands to a standard established by the administering agency. Standards identified vary from full suppression, required by the natives, to protection of structures and humans required by the National Park Service. Because the standards vary so greatly BLM must provide the organization to respond to any situation. Such an organization is very complex and costly. However, costs should come down in the long run with the creation of AFS.

d) Budget and Performance Analysis (Fire Management)

The cost of suppressing major wildfires and subsequent rehabilitation work is traditionally reimbursed by the Congress in the following budget year.

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: State Directors and District Managers

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	9,414	7,231	9,326

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	9,520	7,124	9,326
Work Years	192	153	184

4) Performance

	1981 Actual	1982 Actual	1983 Planned
Fire Management Plans (number)	10	6	8
Prescribed Burns (number) ...	104	80	100

Firefighting and Rehabilitation

5) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	49,750	*64,560	*49,750

*includes \$5 million payback from O&C

*includes \$45,000 proposed 1983 supplemental

6) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	41,119	60,214	49,750
Work Years	1,317	1,043	1,045

7) Performance

	1981 Actual	1982 Actual	1983 Planned
Number of Fires.....	2,870	1,613	N/A
Acres burned	1,157,975	275,701	N/A

E.6. DATA MANAGEMENT

a) Program Description

BLM initiated a study in 1974 to determine its data management requirements for resource and administrative programs. The resulting "Strategic Plan for Information Systems Management," is the principal BLM guide for developing data systems. It calls for a 7 to 12 year effort to improve data storage, manipulation, and analysis. In FY 82 this plan was updated to identify current priorities and achieve cost efficiencies.

The plan calls for BLM data management capabilities to include: 1) a series of data banks to replace voluminous existing files; 2) easier access to data by headquarters and field offices; 3) capability for remote entry, update, and retrieval of data; 4) availability of textual, numeric, and graphic material in the format desired by the user; 5) land use and yield trend information; 6) word processing; 7) production of year-end and other periodic reports; and 8) the capability to process and analyze data to assist management in making better resource decisions.

FLPMA gave BLM a strong legislative mandate for comprehensive land use management, a mandate that was further underscored by the Public Rangelands Improvement Act in 1978. The more recent Paperwork Reduction Act of 1980 emphasizes sound use of automatic data processing in the Federal government. To comply with these mandates and other national needs and respond to a rapidly growing need for analysis of large amounts of data, BLM is expanding its automated capability for gathering, storing, processing, and retrieving resource and other pertinent information. This program includes remote sensing, micrographics, various aspects of telecommunications as well as the traditional automatic data processing elements.

The computer systems being developed will support one or more of the program functions related to management of energy and minerals, lands, range, forestry, watershed, wildlife, recreation, cadastral survey, fire protection, roads and trails, access, transportation and rights-of-way, personnel, property, and financial management. Under the concept advocated by the Commission on Federal

Paperwork and being implemented by BLM, all information storage, manipulation, and retrieval capabilities are managed as an integrated set of activities.

The remote sensing program promotes the use of specific, technology intensive methods to accomplish the Bureau's resource management objectives. The program is responsible for the following:

- application of environmental information obtained by space borne technology to inventory renewable and mineral resources and assess the effects of OCS development;
- production of thematic displays for management planning which merges remotely-sensed information and digitized supplemental data; and
- guidance on the use of satellite communication to transmit synoptic environmental information from remote data collection stations to centralized user locations.

Remote sensing technologies are demonstrating significant dollar and time savings for BLM, as well as providing better decisionmaking tools for management.

b) Progress Report

1) Automatic Data Processing

Emphasis in FY 82 was directed towards improving ADP organization and guidance in BLM and continuing the normal operation and maintenance efforts to support Bureau programs.

The Service Center, located in Denver, Colorado, was reorganized to better support the Bureau's programs. In the State Offices, a Branch of Information Services was established to handle work in ADP, remote sensing, telecommunications, and record management. This will improve efficiency and program coordination and increase the capability of the State Office to support local resource management programs.

Efforts continued to improve present and long-term operations. A major contract was completed to review status, efficiency, and capability of the main computer at the Service Center. Results show it is operating at near full capacity and cannot handle additional major programs. However, other operational improvements were recommended. BLM studied the minicomputers located in the State Offices to determine what type of application systems should be operating on these machines. Based on the study, a decision was made to shift several of the application systems from the host computer in the Service Center to the State Office minicomputers. This will be done in FY 83. A planning docu-

ment was drafted on information systems identifying goals and objectives, and major program needs that must be addressed. This document will be used to guide future Information Systems work in BLM.

A major multi-year effort on Lands and Minerals Management System automation was started in FY 82. This system will automate basic lands records and improve the processing of various lands and mineral cases. This will greatly benefit the public who use the public lands.

Computer support continued to be provided to the various Bureau programs. This included programs such as the simultaneous oil and gas (SOG) leasing program and the Outer Continental Shelf oil and gas lease sales.

Phase II work was completed to automate the SOG drawing entry system. By the end of FY 82, the Wyoming State Office was processing SOG applications for nine of the 11 BLM State Offices (lower 48). The other two states will be on the system by November, 1982. The automated procedures provide an estimated annual savings of \$790,000 over manual processing costs.

Utilizing the mining claim recordation (MCR) on-line automated system, BLM has recorded approximately 1.5 million mining claims on the public lands. During FY 82, 168,000 mining claims were received and 177,000 mining claims recorded, making the total number recorded to date 1,559,736. This reduces the Bureau's backlog to 8,226, or 99.5 percent entered.

Nine State Office are currently placing special emphasis on microfilming the mining claim documents and returning the paper documents to the claimant or destroying the paper in accordance with the Bureau's disposal schedule. BLM has microfilmed 280,000 mining claim case records and returned or destroyed some 69,000 MCR records resulting in space savings of 510 cubic feet.

2) Remote Sensing

The use of aerospace technology continues to enhance the ability of BLM natural resource managers to plan the most effective mix and application of scarce management assets--people, time, and money. In FY 82, BLM inventoried vegetation on about 30 million acres of public land in Oregon, New Mexico, Arizona, Colorado, and Wyoming using information from Landsat imagery. This represents a savings of more than eight cents per acre over traditional, labor-intensive ground surveys, and an increase of 18 million acres more than inventoried in 1981 using Landsat. Techniques were also applied that merge information recorded by Landsat and computerized terrain data with other computerized information to provide ecological site maps

used for Wyoming rangeland inventory assessment. This automation saves about ten cents per acre over previous methods of deriving the information.

Developmental work was completed this year that demonstrates how data from the NOAA Advanced Very High Resolution Radiometer (AVHRR) satellite can be interpreted to provide immediate information over large areas for time-series monitoring of range fire conditions. AVHRR data for the widely-inaccessible section of Arizona north of the Grand Canyon was interpreted weekly during the growing season. Fire management specialists were able to define the relative amounts of annual vegetation and thereby locate the area of greatest fire potential. They were able to monitor its seasonal growth and follow the curing of the wildfire fuel load to identify the time of greatest fire potential. There are few roads in the 3.5 million acre area and the information was used to plan equipment deployment and access for wildfire initial attack. In addition, Landsat imagery was used in Oregon and Alaska to extensively map wildfire fuel types according to the National Fire Danger rating system.

Automated techniques which show yearly variation in reflected electromagnetic energy recorded by Landsat sensors became operational. This capability permits BLM to monitor surface conditions over large areas. Any decrease or increase in reflected energy suggests a change in ground cover conditions. At most locations, reflected energy remains the same and unexplained changes may mean that public coal or phosphate resources are being exploited. These techniques provide fast and cost-effective identification of areas that need to be investigated. In FY 82, about four million acres of widely separated parcels in Florida, Arkansas, and Missouri were monitored using these techniques.

c) Issues

Increased use of ADP and remote sensing techniques is necessary if the Bureau is to meet local, state, and national needs. Technology-intensive, rather than labor-intensive methods must be used to meet the increasing demands on the public lands, while reducing Government spending. Expanded use of such cost-effective tools needs to be recognized as a key challenge as well as an opportunity.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director for Services

2) Funding

	1981 Enacted	1982 Enacted	1982 Proposed
Appropriation (\$000s)	18,629	12,012	12,929

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	16,335	11,690	12,929
Work Years	295	215	219

4) Performance

Data management is a support function that does not have easily quantifiable units of measurement.

E.7. CADASTRAL SURVEY

a) Program Description

A cadastral survey marks and defines the legal boundaries of a tract of public land by establishing monuments, or corner marks, on the ground and recording their location in field notes and plats. Surveys serve as the basis for patents and other documents used for conveyance of public lands out of Federal ownership and for overall administration and management of lands retained in Federal ownership. Also included in the Public Land Survey System (PLSS) are Federal boundaries on the Outer Continental Shelf. BLM acquired responsibility for the administration and execution of cadastral surveys when the General Land Office was merged with the Grazing Service to form BLM in 1946.

Legally defensible boundaries are essential for identification of ownership so that the management of the public lands can proceed. Legal property descriptions are required for public land transfers, energy development, easement acquisition, timber sales, and right-of-way grants.

Cadastral Survey also resurveys those areas where markers have become lost or obliterated for the purpose of defining the boundaries between Federal and state land.

Cadastral survey information is depicted on a base through the use of cartography. The accurate por-

trayal of the PLSS land records and status on a geographically referenced base is of prime importance to land managers, both public and private. Many of the BLM mapping requirements are satisfied through cooperative efforts with other Federal agencies.

Much of Cadastral Survey's work in the Lower 48 States is performed on a reimbursable basis for other Federal agencies. BLM performs surveys for the Forest Service, Bureau of Indian Affairs, National Park Service, the Bureau of Reclamation, U.S. Fish and Wildlife Service, the Department of Defense, and occasionally the Department of Justice. Unless approved by BLM, surveys do not carry the full weight of Federal law and do not become part of the public land records system. The Forest Service (FS) and the National Park Service (NPS) have each signed a Memorandum of Agreement (MOA) with BLM which cites the conditions under which personnel of the FS and NPS can execute field surveys under BLM special instructions and official approval.

Original survey work remains a major program element in Alaska, where 90 percent of all original survey work is now performed. The Alaska Statehood Act of 1958 required the State to select 105 million acres of Federal lands within 25 years. The task of surveying those lands was compounded by the Alaska Native Claims Settlement Act of 1971 (ANCSA), which provided for a grant of 44 million acres of Federal land to the State's Eskimos, Indians, and Aleuts, as well as for the designation of additional acreage as national parks, wildlife refuges, national forests, and wild and scenic river areas. Before title to any of this land can be transferred to Natives or to State and Federal agencies, boundaries must be surveyed, private rights identified, and municipal boundaries and specialized sites defined.

This sudden increase in surveys needed in Alaska spurred BLM to find new survey technologies. The Auto-Surveyor, an inertial guidance system that can identify an in-flight aircraft's exact longitude and latitude position, continued to help meet these survey needs. The continued use of contractors to perform large-scale original surveys also assisted with Alaska survey needs.

b) Progress Report

BLM has completed roughly 76.6 million or 51 percent of the 149 million acres of boundary survey work in Alaska required under the Alaska Statehood Act and the Alaska Native Claims Settlement Act (ANCSA) prior to land transfers to the State and to Native groups. These boundary surveys,

however, do not complete the survey work needed to convey the lands to the Natives and the State. The internal surveys to identify private rights is still needed. In addition, 272.5 million acres remain unsurveyed in Alaska. This 272.5 million acres includes the millions of acres of surveys needed to identify boundaries of national parks, forests, wildlife refuges, and wild and scenic rivers created by the Alaska National Interest Lands Conservation Act (ANILCA). In addition, 15.9 million acres of land remaining under Federal jurisdiction have been surveyed.

New survey technology continues to be tested to reduce the cadastral survey program's enormous backlog. A new North Determining Gyroscope for initial use in Alaska is being field tested. It can determine azimuth when cloud cover prevents solar observation. Plans for FY 83 include field testing of a prototype doppler survey Global Positioning System (GPS) and implementation in more State Offices of automated plat drafting which was developed in Colorado.

c) Issues

The backlog of unsurveyed public land is the primary issue in the Cadastral Survey Program. Over 300 million acres of public land have yet to be surveyed.

It is estimated that it will take hundreds of years to complete these surveys.

d) Budget and Performance Analysis Alaska Program

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: Director, Alaska State Office

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	11,510	9,606	9,989

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (\$000s)	11,835	9,795	9,989
Work Years	185	158	156

Acres Required to be Surveyed	Through FY 81	Estimate FY 82	Remaining to be Surveyed	Planned for Completion by
ANCSA (44,000)	28,058	1,240	13,932	1990
State Sections (104,450)	45,846	2,300	58,513	2005
All Other (226,854)	44,629	0	181,212	2000 +
Total (375,304)	118,533	3,540	256,770	-

e) Budget and Performance Analysis *Lower 48 States*

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: Director, Denver Service Center & Directors, State Offices

2) Funding

	1981 Enacted	1982 Enacted	1983 Proposed
Appropriation (\$000s)	13,612	10,031	11,568

3) Program Obligations

	1981 Enacted	1982 Enacted	1983 Proposed
Dollars (000s)	14,177	9,938	11,568
Work Years	384	304	315

4) Performance

Work Units	1981 Enacted	1982 Enacted	1983 Proposed
Cartography (number)	404	-	-
Original Survey (miles)	85	-	-
Resurveys (miles)	3,216	-	-
Special Surveys (miles)	33	-	-
Remonumentation (number)	395	-	-

*Actual figures will not be available until FY 84.

E.8 VOLUNTEER PROGRAM

During FY 82 BLM invited citizens and citizen groups to assist in public lands conservation, development, and protection projects on a voluntary basis. By the year's end more than 1,600 people had volunteered and contributed more than 130,000 hours of service. BLM field managers estimate the value of the work accomplished to be about \$900,000, at a cost to the government of about \$200,000 for supplies and guidance.

The volunteers included 197 college-student Resource Management Assistants, and 18 members of high school work groups who participated in BLM projects under a cooperative arrangement with the Student Conservation Association, a non-profit educational organization.

The bulk of the contributed services involved renewable resource programs: improving fish and wildlife habitat, rangeland, forestland, and watersheds; soil and water conservation; developing and maintaining trails, campgrounds, and other recreational resources; and working on archeological and historic sites. Volunteers and Student Conservation Program participants also assisted with geology and mineral assessment, surveying, engineering, planning, public affairs, and administrative support.

During FY 82, BLM conducted a pilot program in another supplementary workforce program, the Senior Community Service Employment Program. Under this program low income workers 55 and older do half-time work and receive on-the-job training from host agencies. By year's end BLM field offices in eight States were hosting 18 such workers, in cooperation with Green Thumb, Inc., one of the national sponsors of the program, created by Title V of the Older Americans Act. The test was quite successful and actions to expand use of this program will be pursued in FY 83.

V. APPENDIX

V. APPENDIX

BLM Organizational Structure

The Bureau of Land Management was established July 16, 1946, through consolidation of the General Land Office (created in 1812) and the Grazing Service (formed in 1934) as set forth in the President's Reorganization Plan 3 of 1946. Since 1946, BLM has evolved into a decentralized, line and staff organization.

BLM Headquarters Office, in Washington, D.C., is headed by the Director and Associate Director. They are supported by three Deputy Directors who function as line officials and who, together with the Director and Associate Director, provide top-level executive leadership and management.

The Headquarters Office develops and translates executive, legislative, and judicial policy into specific sets of programs to pursue national goals on a consistent basis throughout BLM's field organization. It identifies policy and decision needs for the mid and long-term future and supports Secretarial Officials in coordinating BLM programs with those of other Federal, state, and local governments. The Headquarters Office also assures that program responsibilities delegated to other BLM units are being fulfilled according to established policies and procedures.

There are 12 State Offices each headed by a State Director with line authority. These offices are the intermediate supervisory and administrative offices responsible for all land and resource programs within their geographic area of responsibility. Each BLM State Office administers a geographic area which generally conforms to State boundaries and consists of one or more States. The map, on the last page, shows the location of the State Offices. These offices are responsible for planning, developing, and managing renewable and nonrenewable resources programs, and for maintaining relations with the public and with a variety of organizations. The acreage which western State Offices manage ranges from seven million acres of public lands in Montana to about 150 million in Alaska. The Eastern States Office, headquartered in Alexandria, Virginia, manages approximately 60,000 acres in states which border on or are east of the Mississippi River and leases minerals on 24 million acres of federal reserved mineral ownership.

At the local level, 53 District Offices develop and carry out resource management work programs. Each office has responsibility for a portion of the geographical area under the jurisdiction of the State Office. Districts are the basic field component of BLM and are headed by a District Manager, who is a line official. In the lower 48 States, the largest district is the California Desert District which con-

tains more than 12 million acres. The smallest is Dickinson in North Dakota with 62,000 acres. The average size of a district in the lower 48 is about three million acres, or an area about the size of Connecticut. In Alaska, the Anchorage and Fairbanks District sizes are changing rapidly, due in large part to the Alaska National Interest Lands Conservation Act, and are, therefore, not broken out as to their respective size.

A District is divided into Resource Areas. The line official for an Area Office is the Area Manager who has responsibility for day-to-day resource management activities and implementation of on-the-ground actions for use of the public lands. Resource Areas in the lower 48 States range in size from about 5.3 million acres in the Stateline-Esmeralda Resource Area of Nevada to about 7,000 surface acres in the Oklahoma City Resource Area.

There are 157 Area Offices in BLM, many of them sharing office locations with District Offices, 52 are detached Resource Area Headquarters in separate communities.

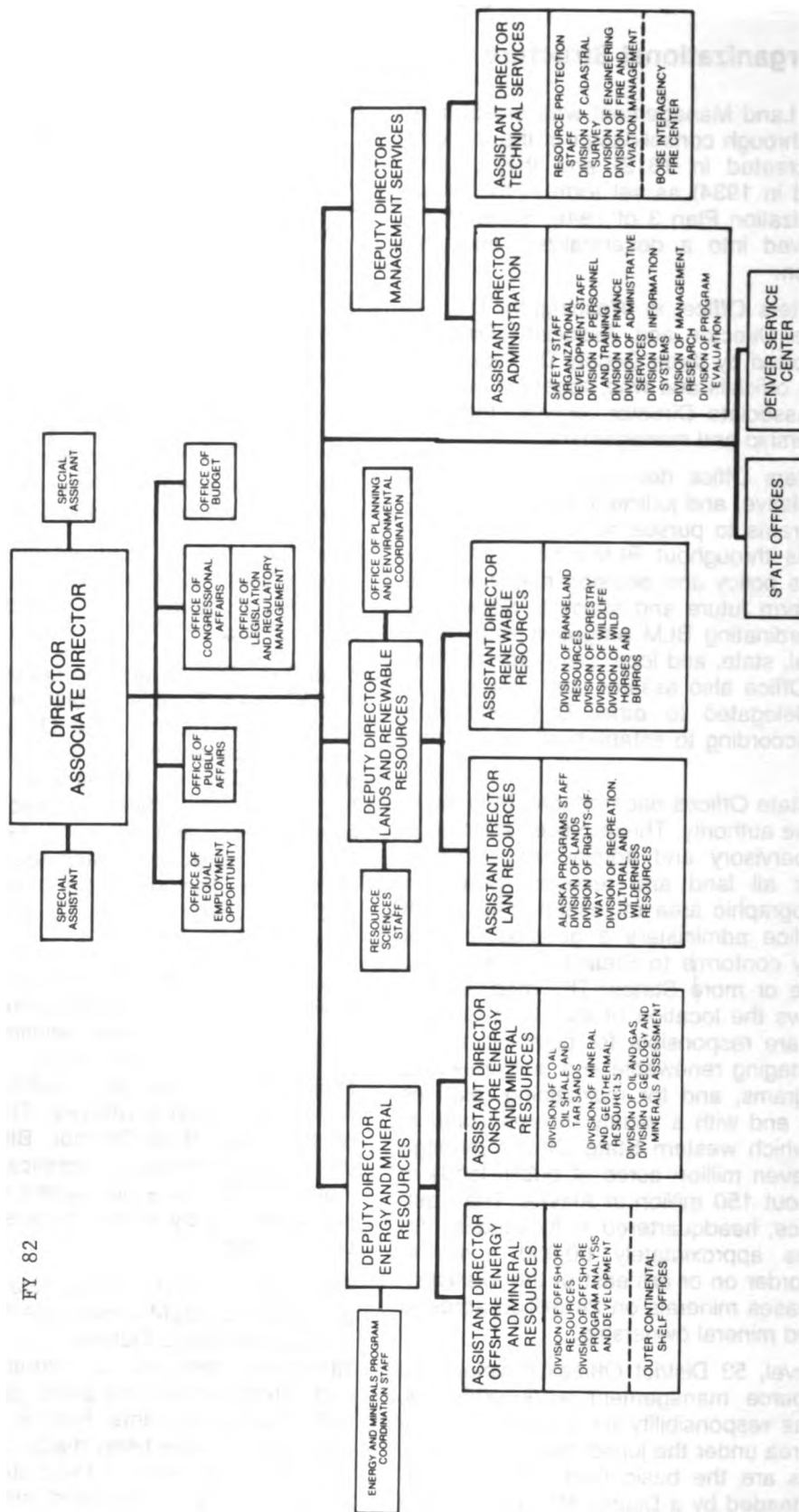
Two Field Offices provide special support to BLM: The Denver Service Center and the Boise Interagency Fire Center. The Denver Service Center provides consolidated administrative support to State and District Offices and, to some extent, to the Washington Office. It is also charged with gathering, storing, and retrieving natural resource data and adapting scientific and technological concepts to field use. The line official of the Service Center is a Director who reports to the BLM Director in Washington.

The mission of the Boise Interagency Fire Center (BIFC) is to pool interagency fire fighting resources and deploy them when wildfires get beyond the control of local BLM, Forest Service, Bureau of Indian Affairs, Fish and Wildlife Service, and National Park Service officials. The responsible BLM official is the BLM Director, BIFC, who reports to the Assistant Director, Technical Services in Washington. BIFC has a permanent work force which is supplemented by additional personnel as fire conditions dictate.

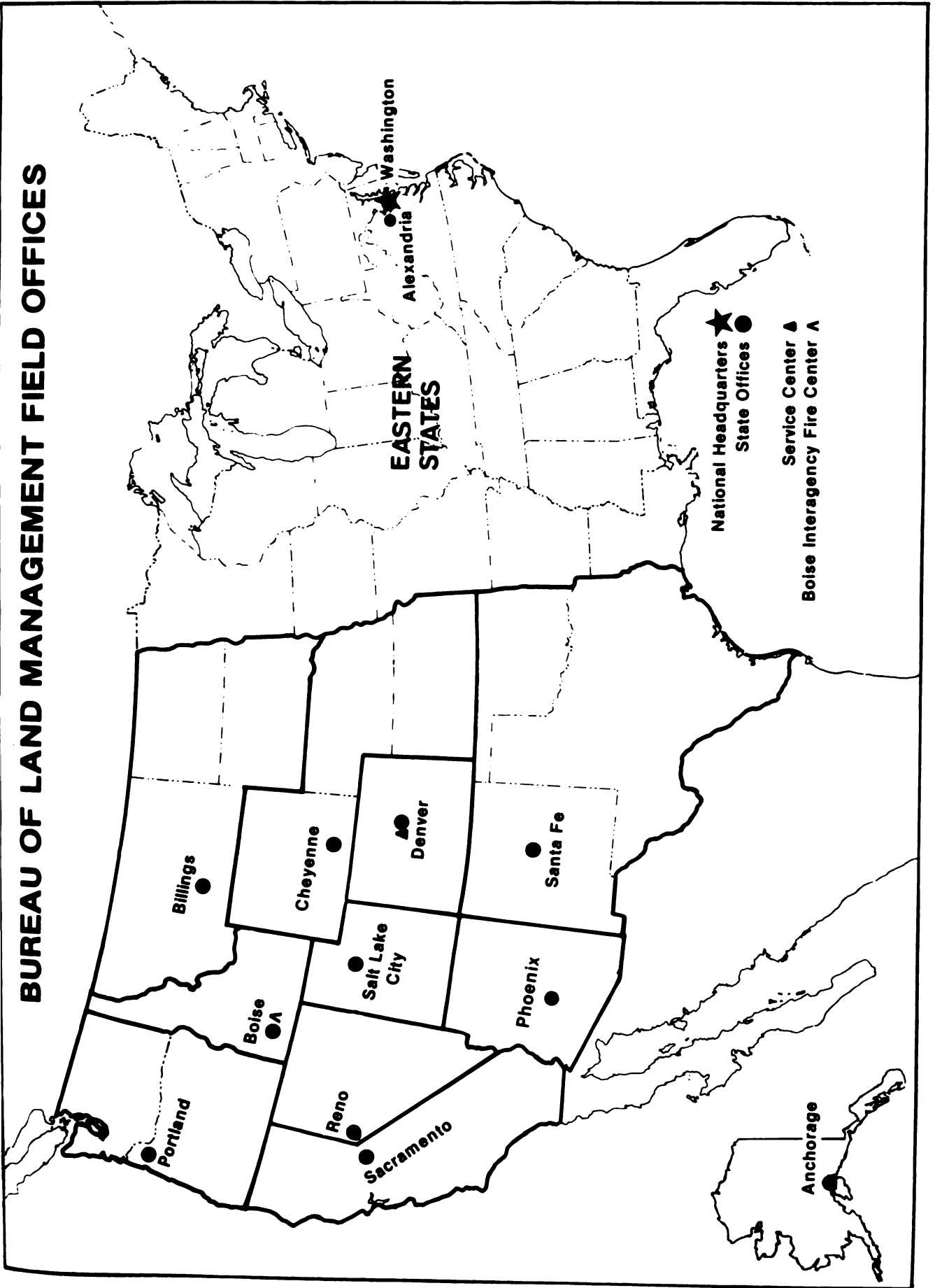
On June 30, 1981, the Secretary approved a reorganization of BLM's Headquarters Office with the changes effective October 15, 1981. The reorganization was designed to increase BLM's efficiency and effectiveness and place greater emphasis on high priority programs. Further adjustments to the organization have been made during the course of the year as a result of the Outer Continental Shelf program being consolidated into the Minerals Management Service. The current organization chart for BLM is shown as part of this appendix.

BUREAU OF LAND MANAGEMENT

FY 82



BUREAU OF LAND MANAGEMENT FIELD OFFICES



UNITED STATES
DEPARTMENT OF THE INTERIOR
WASHINGTON, D. C. 20240

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF THE INTERIOR
INT-415



DEPOSIT
MAY 19 1983
SHIPPED



I 53.12/2 : 1983

Managing the Nation's Public Lands Fiscal Year 1983



January 31, 1984

**U.S. Department of the Interior
Bureau of Land Management
Washington, D.C. 20240**

Managing the Nation's Public Lands

A Program Report Pursuant to Requirements of the
Federal Land Policy and Management Act of 1976

For the Period From October 1, 1982 to September 30, 1983

MANAGING THE NATION'S PUBLIC LANDS

TABLE OF CONTENTS

Preface: The "New BLM"	5	3. Acquisitions	51
I. Program Overview	9	4. Withdrawal Review	53
II. Revenues and Receipts	17	5. Alaska Lands	53
III. State and Local Shares	21	6. Wilderness Review	55
IV. BLM Operating Programs	25	7. Recreation Management	57
A. Resource Management Planning	29	8. Natural History Resource Management	58
B. Energy and Minerals	33	9. Cultural Resource Management	59
1. Geology and Mineral Resources	33	D. Renewable Resources	63
2. Inspection and Enforcement	34	1. Livestock Grazing Management	63
3. Oil and Gas Management	35	2. Range Improvement	64
4. Geothermal Management	37	3. Soil, Water and Air Management	66
5. Coal Management	38	4. Forest Management	66
6. Oil Shale Management	40	5. Wildlife Habitat Management	68
7. Tar Sand Management	41	6. Wild Horse and Burro Management	69
8. Nonenergy Leasable Minerals	42	E. Support Services	75
9. Mining Law Administration and Mineral Ma- terials	43	1. Law Enforcement	75
C. Land Programs	49	2. Cadastral Survey	76
1. Lands	49	3. Engineering	78
2. Rights-of-Way	50	4. Fire and Aviation Management	80
		5. General Administration	82
		6. Evaluation/Audits	84
		7. Data Management	85
		8. Volunteers and Other Contributed Services	86
		V. Appendix - BLM Organizational Structure	91

PREFACE: THE 'NEW BLM'

On December 3, 1982, Secretarial Order 3087 initiated efforts to consolidate and streamline Interior's onshore mineral leasing functions. Relevant functions formerly part of Minerals Management Service (MMS) were merged with the Bureau of Land Management (BLM). Royalty collections and distribution remained in MMS. With all the nonfinancial onshore mineral leasing activities housed within the BLM, the following objectives could be achieved more efficiently:

- Integrated multiple-use management
- One-stop service
- Reduced or eliminated overlap
- Responsiveness to users of public lands
- A decentralized organization with merged functions
- Enhanced program effectiveness

These merger objectives also serve as guidelines for the development of the 'New BLM.'

In response to the mandate, the BLM has aggressively pursued full achievement of the objectives. To date, this has included a wide variety of focused activities; among these are:

Organizational Structure

From the outset the merger was a joint effort. A combined task group of MMS onshore and BLM employees was formed to develop several organizational options for management consideration. The BLM minerals organization at the Headquarters and field level was restructured to integrate the new onshore function with existing activities. The BLM headquarters organization now includes a Deputy Director, Energy and Minerals; an Office of Inspection and Enforcement; and Assistant Directors for (1) Solid Leasable Minerals, (2) Fluid Leasable Minerals, and (3) Mineral Resources and Mining Law.

In the field, Deputy State Director for Mineral Resources positions were created with appropriate substructures at each BLM State Office level. Assistant District Managers for Mineral Resources were established in Districts with strong minerals programs. This organizational structure emphasizes decentralization with delegation of authority to the lowest possible level, thus placing program emphasis and responsibility where the workload, staffing capabilities, and user needs exist. A number of geographical changes were necessary to merge existing BLM and MMS onshore program offices in the field. Creation of the new BLM entailed consolidation in 27 locations, 1 new office opening, 8 office closings, and 6 offices changing status.

Program Alignment

Prior to the merger, the responsibility for ten mineral leasing functions had combined BLM and MMS outputs. As a result of the merger, all of these functions, with the exception of royalty collection and distribution, are accomplished solely by BLM. This clarification of responsibility provides the basis for a more responsive, well managed BLM minerals program to serve the public.

The new BLM Energy and Minerals management team is working to develop minerals program goals and utilizing the Department of the Interior's Management by Objectives system to track the completion of the merger. The BLM is continuing efforts to ensure smooth integration of the onshore program by sending Merger Assistance Teams to field offices to help identify and resolve local issues and concerns as well as national issues and problems. Training courses covering various aspects of the new Mineral programs have also been developed and are scheduled for Fiscal Year 1984.

The BLM is confident time and performance will verify that these merger actions and accomplishments will achieve the goals and objectives of the Secretarial Order.

Personnel Placements

Perhaps the most challenging accomplishment of the merger was the placement of approximately 840 personnel nationwide who transferred from MMS to BLM. Personnel Management Committee meetings were held on State, regional, and national levels to place clerical, professional, and managerial employees in new organizational positions. These meetings were conducted with the imperative to do all that reasonably could be done to ensure appropriate placement of employees impacted by the merger.

The placement of managers and employees from both MMS onshore and BLM in key positions is indicative of the attention and emphasis placed on developing a balanced personnel mix to create the best combination of experience and expertise for a decentralized organization.

Communication

During the merger process, open communication between management and employees was a key element in ensuring a smooth integration of the onshore programs into BLM. Bureauwide initiatives such as establishment of a "hotline system" to address employee questions and concerns, formal memoranda, employee meetings, periodic merger updates via the BLM "Inside Track" newsletter, and

orientation sessions all served to keep employees informed of the merger progress. Meetings with industry and other agencies were conducted not only at the Washington Office level, but also at the State and District levels. Concerns, problems, and issues raised by various people and organizations were addressed and resolved at quarterly State Directors' meetings.

Evaluation

The key to successfully merging organizations is to realize that the process is dynamic and continuing until the two merged organizations are no longer differentiated. This entails a constant monitoring of people's perceptions, performance, and frustrations, as well as organizational effectiveness, accomplishments, and failures. In addition to the normal evaluation processes to feed back progress to the Directorate, a special representative from outside the Department of the Interior was appointed by the Director to assess the status of the merger before December 1, 1983. The findings of evaluation teams, merger assistance teams, and the special representative are or will be continually factored into the successful creation of the "New BLM."

Issues and Actions

As a result of management concerns and evaluation efforts, the following national issues were identified for prompt attention:

- Implementation of the Inspection and Enforcement (I&E) Program.
- Consolidation of automated data processing systems.
- Resolution of position classification and personnel inconsistencies.
- Interface with Royalty Management onshore functions.

- Capability of the new BLM to respond to Bureau of Indian Affairs mineral leasing needs.

- Completion of personnel and office moves.

As these problems were identified, action plans were generated, approved by the Bureau Directorate, and immediately set into motion for completion as soon as possible.

To deal with aspects of the I&E implementation issue, for example, the following action items have been or will be accomplished during FY 1984:

- Issue written Washington Office guidance reaffirming Bureau policy for I&E activities.
- Identify roles, responsibilities, and qualifications for various I&E positions.
- Categorize I&E functions by complexity level to assess the feasibility of using nonenergy and mineral field personnel to aid in areas where I&E activities are needed but are lacking.
- Assess training needs for I&E functions and provide internal training to meet those needs.
- Develop recruitment action plans for "hard to fill" I&E positions.

Not all of these issues confronting BLM were created by the merger; some existed previously and were simply inherited from MMS. However, the new BLM management team aggressively is pursuing timely solutions to these and any other problems that may arise.

Often BLM managers must make decisions regarding problems thrust upon them with deadlines outside their control and with options framed by others, while at the same time responding to issues and problems crammed with requirements for technical competence and specialized knowledge or skill. As the new BLM emerges and demonstrates its capability as a viable and healthy organization, the architects of change must realize that over the years BLM continuously has demonstrated its ability to manage the actual, master the unexpected, moderate the negative impacts of change, and mold the future.

I. Program Overview



I. PROGRAM OVERVIEW

A. GOALS AND ACCOMPLISHMENTS

During Fiscal Year 1983, the Bureau of Land Management (BLM) emphasized the management of the public lands and their related resources for the benefit of all Americans. As a vital contributor to the Department of the Interior's "Year of Enrichment," BLM continued the orderly development and wise use of our public land resources to improve the quality of life for present and future generations of Americans.

The 282 million surface acres and approximately 650 million subsurface acres administered by BLM are primarily in the West and Alaska, and are rich in a wide variety of resources. Sound management requires striking a balance between the many uses of the public lands, which BLM is committed to attain. Within this context, we have continued to emphasize the needs of America's people for self-sufficiency in energy, mineral, agricultural and forestry products, for recreational opportunities, and for preservation of historic and cultural resources.

Major accomplishments in FY 1983 toward meeting our goals are summarized in the following list:

- During the year a major reorganization was completed with the transfer of the majority of the onshore minerals operations from the Mineral Management Service to BLM. This consolidation of functions and programs will improve the efficiency and coordination efforts of BLM in mineral leasing activities and in industry services regarding mineral resource developments.
- The final programmatic EIS for mineral leasing in the National Petroleum Reserve, Alaska (NPR-A) was published in March 1983.
- Approximately 2.2 million acres were offered for oil and gas leasing in the NPR-A, and an additional 2.9 million acres were opened for mineral leasing under the Alaska National Interest Lands Conservation Act.
- Noncompetitive oil and gas leasing in the non-North Slope portions of Alaska public lands continued in FY 1983 with the opening by Public Land Order of 4,421,340 acres in the Seward Peninsula area to the mineral leasing laws.
- Ninety percent of the reporting and recordkeeping requirements affecting geothermal program participants were eliminated through regulatory revisions.
- A total of 21 coal leases covering about 28,700 acres were issued. Recoverable coal reserves in these leases are estimated at 997 million tons.
- The production of 134 million tons of coal from Federal and Indian lands generating a combined revenue of \$65.5 million was verified by BLM.
- Interim final rules clarifying the role of the Department of the Interior and the States in the Federal coal management program became effective on January 12, 1983, and were published as final rules on August 19, 1983.
- Final regulations to initiate competitive tar sand leasing in special tar sand areas were published in February and became effective in March 1983.
- The production of 148.6 million tons of 24 solid leasable commodities from Federal and Indian lands generating a combined revenue of \$101.8 million in FY 1983 was verified by BLM.
- Use of approximately 40,000 acres of public lands was granted to state and local governments under the Good Neighbor Program through the provisions of the Recreation and Public Purposes Act of 1926, as amended (R&PP Act).
- 94 Public Land Orders were issued revoking withdrawals on 7.3 million acres in the lower 48 States and Alaska. Some 4.4 million acres were opened to mineral leasing and 329,000 acres opened to mining location.
- 189,000 acres were transferred to the lower 48 Western States under State indemnity selection rights. The remaining entitlement to be transferred is 203,806 acres.
- BLM opened more than 2.56 million acres in Alaska to occupancy, leasing, and disposal under FLPMA, and 5.7 million acres were opened to mining.
- BLM conveyed more than 10.0 million acres to the State of Alaska, bringing the total to 75.3 million acres or about 72 percent of its entitlement.
- BLM conveyed more than 7 million acres to Alaska Native corporations, bringing the total to 30.2 million acres or about 68.8 percent of their entitlement. Also, decisions to convey more than 4 million acres were issued, bringing the total to 34 million acres on which decisions have been issued.
- BLM has identified more than 2.7 million acres as potentially suitable for disposal under the land tenure transaction program.

- A final rangeland improvement policy was issued in FY 1983. This policy provides incentives to encourage private investments in rangeland improvements, assigns maintenance responsibility for structural improvements to the primary beneficiaries, and makes mandatory the use of procedures for evaluating the cost-effectiveness of proposed rangeland improvements.
- To expand opportunities for cooperative agreements with public land users, BLM initiated a Cooperative Management Agreement (CMA) program. Under CMA's, public land users or user groups may share in managing their activities on specific areas of the public lands, subject to BLM supervision.
- More than 1.2 billion board feet of timber were sold in FY 1983 for \$137.7 million and receipts from actual timber harvests were \$104.7 million.
- State and county governments received \$506.5 million from revenues produced from public lands. County governments received an additional \$96 million through payments in lieu of taxes, funded as part of the Department of the Interior's appropriations.

Much of BLM's progress in FY 1983 results from a revitalized cooperative spirit between BLM, state and local governments, private organizations, and individuals. We look forward to furthering this cooperative management as we strive toward balanced, multiple use management of our Nation's resources for all Americans, now and in the future.

B. THE RESOURCES MANAGED BY THE BUREAU

The Bureau of Land Management (BLM) is responsible for achieving balanced and effective multiple-use management of publicly owned land. These lands include 175 million acres in 11 Western States and 64 million acres in Alaska. In addition, about 43 million acres in Alaska are being managed by BLM pending transfer to the Natives and the State. BLM also manages approximately 368 million acres of Federally owned subsurface rights throughout the Nation underlying lands that are administered by other agencies or are privately owned.

Throughout the last century, to raise revenues and to encourage development of the West, the Federal Government sold or granted vast tracts of public domain land to settlers, miners, towns, states, railroads and other private companies. Most of these public domain lands had been acquired by the Federal Government in the course of our national ex-

pansion. The Federal Government also reserved millions of additional acres for such uses as Indian reservations, national parks and forests, wildlife refuges, and defense installations. The lands that BLM currently manages are lands that, for one reason or another, were not transferred to private ownership or reserved for other Federal agencies.

The public lands managed by BLM in the Western States and Alaska are now some of America's last wide-open spaces. National attention has turned to the rich resources of the public lands as the Nation seeks to meet its growing needs for energy, food, timber, minerals, water, wildlife, and recreation. This attention is long overdue and, not surprisingly, has generated increased interest over how to manage and use public land resources. The facts cited below indicate that the stakes are high and continue to grow.

- The onshore public lands contain about 1.6 billion barrels of proven domestic oil reserves and about 12.7 trillion cubic feet of recoverable domestic natural gas reserves.
- More than 55 million acres of public land are prospective sources of geothermal energy. In addition, approximately 2 million acres have been identified as known geothermal resource areas.
- Half of the Nation's coal reserves are in the West, and as much as 60 percent of that coal is owned by the Federal Government. BLM also administers substantial eastern coal reserves, the largest portion being in Alabama.
- Some 35 percent of the Nation's uranium reserves are found on public land in the Wyoming basin and on the Colorado plateau.
- About 80 percent of the Nation's oil shale, the largest known reserve in the free world, lies under public lands, mostly in Colorado.
- The 11 major tar sand sites occur on public lands in Utah, and are estimated to contain almost 2 billion barrels of recoverable oil.
- The public lands contain an enormous storehouse of the Nation's nonenergy mineral deposits, including some of the world class deposits of molybdenum, phosphate, and potash.
- More than 22,000 livestock operators graze about 5.5 million head of domestic livestock on the public lands. Approximately 11 million animal unit months of forage were harvested from these lands in 1983.
- About 1.2 billion board feet of timber are harvested from BLM-managed Federal lands in an average year.
- The public made an estimated 55 million visits last year to hundreds of unique recreational

areas on the public lands. These areas include 13 Wild and Scenic Rivers, 19 National Trails, and 28 Outstanding Natural Areas.

- In addition, 43 National Natural Landmarks and 47 Research Natural Areas have been designated on lands administered by BLM, including one area designated as a component of the Global Biosphere Reserves system.

- The Fort Stanton Cooperative Range Research Station in New Mexico has been designated by the National Science Foundation as an Experimental Ecological Reserve.

- BLM has the Nation's largest cultural resource management responsibility. There are more than 290 archaeological and historical sites already listed on the National Register of Historic Places; 400 more are pending. Nearly 15,000 other sites or areas are potentially eligible for nomination, and inventories are identifying annually an additional 1,000 sites of possible cultural significance.

- No single Federal or State agency manages more wildlife habitat than BLM. The public lands are home to one out of every five of the big game animals in the entire United States, including most of the caribou, brown and grizzly bears, desert bighorn sheep, moose, mule deer, and antelope. BLM also manages 17 million acres of wetlands, 15.4 million acres of riparian habitat, 323,000 miles of perennial streams, and nearly 4.2 million surface acres of lakes and reservoirs. These lands contain more than 86,000 miles of streams that contain trout, salmon, and other sport fish.

The magnitude and value of these resources, along with the high potential for conflicting demands and uses, make BLM issues some of the most pressing domestic resource policy issues facing the Nation. BLM is involved in many high-visibility issues: on-shore oil and gas development, energy facility siting and transcontinental pipelines, coal development, synfuels, nuclear and other hazardous waste disposal, timber production, the availability of water and land for urban development, the disappearance of the Nation's open spaces, and many others.

In addition to providing energy, food, mineral, timber, wildlife, and cultural resources, the public lands provide revenues to the Federal and State treasuries. An estimated \$1.2 billion was collected in FY 1983 and turned over to the Federal Treasury. Portions of this money were paid to state and local governments. These revenues were paid by users of the public lands in the form of grazing fees; energy and minerals lease sale receipts, filing fees, royalties, and rental payments; timber sale payments; recreation and firewood permit fees, etc.

(More detailed information on these revenues and their distribution is provided in Parts II and III of this report.)

C. THE HISTORY OF BLM'S MISSION

In 1785 the Surveyor General began the first land survey under the United States rectangular survey system, and the first sale of public lands was held in New York City in 1787. Similar sales were conducted by the Board of Treasury for 25 years. To meet demands of pioneers and frontiersmen, Congress established the first land offices in Ohio in 1800, and followed up by establishing The General Land Office in 1812. In 1849, The General Land Office became part of the Department of the Interior.

The deteriorating condition of the public lands after the turn of the 20th century, underscored by the drought and depression of the 1930's, resulted in the passage of the Taylor Grazing Act in 1934. The U.S. Grazing Service made the first effort to actively manage the unreserved public lands. The Act focused primarily on grazing management rather than on a broader spectrum of uses, still reflecting perspectives that would change following World War II. The Act perpetuated the assumption that the public lands eventually would be transferred to private ownership.

This assumption was reinforced in 1946 when the Bureau of Land Management was formed (through the merger of the General Land Office and the Grazing Service) to serve as custodial manager of the public lands. BLM's management authority was scattered among a myriad of existing laws involving mining and mineral leasing, grazing, timber, material sales, public land sales, etc. The scattering of authority made BLM's operations complex, inefficient, and often times *ad hoc*, and reflected a lack of clarity about BLM's mission. Combined with the assumption that the land would eventually be disposed of, this confusion had the effect of limiting the extent to which Congress was willing to provide funding for investments that would improve the productivity of the public lands.

In the Classification and Multiple Use Act of 1964, Congress established a temporary process for reviewing the public lands in Federal ownership to determine which should be classified as suitable for disposal, and which contained values that would make them best suited for retention in Federal ownership. In the same year, Congress created the Public Land Law Review Commission to study the issues of public land management and recommend needed changes in policy and authorities.

The Commission's report was referred to frequently in the development of what became the Federal Land Policy and Management Act (FLPMA) of 1976. The first version of this comprehensive public land law was introduced a year after the release of the report in 1970. After consideration by three Congresses, the Act reflects changing public priorities that had evolved over a decade.

FLPMA establishes the national policy that the public lands shall be retained in Federal ownership and managed for all Americans under the principles of multiple use and sustained yield. In general, lands are disposed of only if, as a result of land use planning procedures provided for in the Act, it is determined that disposal of a particular parcel will better serve the national interest. The Act mandates that decisions on the use of the lands be based on inventories of the resource base and on the results of considering alternative levels and types of use. Furthermore, the decisions are to be made with the full participation of the public, and a careful balancing of the interests of competing users.

The most recent development in BLM's history was the December 1982 signing of Secretarial Order 3087, which merged the onshore minerals responsibilities of the Minerals Management Service and the BLM. The Bureau now has a much expanded role in the management of onshore mineral resources, including responsibilities for enforcement of postlease laws and regulations for exploration and mining operations on Federal and Indian lands. This operational function includes exploration and mining plan approval and monitoring, production verification, and all engineering and geologic aspects related to operations on Federal and Indian lands.

D. CURRENT RESOURCE DEMANDS AND MANAGEMENT EXPECTATIONS

The creation of a comprehensive legislative mandate (FLPMA) came at a time when demands on the resources of the public lands were increasing rapidly. The growing inaccessibility of basic commodities, a gradual shift in the demographic center of the Nation to the West and South, increasing national affluence, more leisure time, and an appreciation of environmental values all have intensified pressures on the public lands. These uses are for sometimes competing purposes such as energy production, wildlife habitat, urban growth, wilderness preservation, and recreation, as well as the traditional uses such as livestock grazing, timber production, and mining.

1. What the Public Wants from BLM

The Bureau of Land Management continues to ask the public to express their needs from and their expectations for the public lands. BLM has contacted Governors, State officials, State and regional interest groups, county and local officials, and individuals asking them to identify both public land needs and problems with public land management and to suggest opportunities and priorities for the 1980's.

Improving the productivity of the public lands is often identified as a high priority, with particular emphasis on increased energy production. The public also wants BLM to manage the public land resources (rangeland, forests, energy and minerals, etc.) with sensitivity to social, economic, and environmental impacts.

The public wants assurance from BLM that its minerals are leased with public participation and consideration of environmental concerns, and that fair market value is received for those resources. Exploration and mining operations are to be conducted in accordance with sound ecologic, engineering, and environmental practices. In addition, the public wants to be assured that development of Federal mineral resources is conducted in a manner that maximizes recovery while protecting the resources that remain, and that royalties are paid on a timely basis for Federal minerals that are produced.

Improving Bureau methods for protecting resource values threatened by changes in land use is an important goal. This can be achieved by identifying potentially adverse impacts associated with changes in the use of public lands, and developing and implementing measures to manage and protect threatened resource values such as wildlife, cultural or historic sites, and unique natural areas.

Through a multi-discipline planning process, BLM is providing timely decisions that result from careful consideration of State and local concerns and priorities as well as effective public participation. The Bureau has developed methods for resolving conflicting uses, policies, and procedures that involve the public in the resolution of the potential impacts of alternative land uses. In addition, public land use decisions reflect the social and economic needs of communities and individuals.

2. Mandated Responsibilities

As interest in and demands on the resources of the public lands have increased, so too have Congressional, Judicial, and Executive mandates for more intensive management, improved protection, and expanded services. Many of these mandates have

specific schedules and deadlines for completion. Recent notable legislative mandates include:

- a review of certain withdrawals of public land in 11 Western States made prior to October 21, 1976, to be completed by 1991;
- offering oil and gas leases in the National Petroleum Reserve in Alaska.
- reports to Congress by December 31, 1985, on the current grazing fee formula and on the Experimental Stewardship Program; and
- a review of potential wilderness areas to be completed by 1991.

Judicial mandates that have had the greatest impact on the Bureau's management responsibilities include:

- 144 Environmental Impact Statements (EIS's) for livestock grazing on 170 million acres of public rangeland by 1988;
- EIS's on forest management in Oregon and portions of California and Idaho by 1982 (extended to 1983); and
- public land designations as specifically open or closed to off-road vehicle use by the end of 1987.

Also, numerous recent Executive Orders have mandated a variety of special surveys and inventories of, for example, cultural, wildlife, wetlands, and endangered species resources prior to permitting the use of public land for development.

In order to comply with all these public demands and statutory requirements, it became imperative that BLM establish a flexible, integrated, and responsive management system.

E. THE DEVELOPMENT OF A RESPONSIVE MANAGEMENT SYSTEM

The Bureau's budget and its functional organization are divided into programs designed to address one or more resource management objectives such as energy and minerals management, range management, and forest management. When statutory, judicial, or administrative mandates change, BLM is often expected to shift available funding and personnel resources rapidly from program to program to adjust to new demands.

When it drafted FLPMA, Congress recognized that public land management is not simply a matter of administering a series of programs to address isolated problems and issues. The central reality of public land management stems from the nature of the lands themselves. BLM manages an intricate

combination of natural resources—from coal to caribou, watershed to cultural resources—which interlock in a system wherein change in the use of one almost invariably means change in another. FLPMA prescribes a management approach which reflects the sensitivity and complexity of these multiple uses. BLM has developed and implemented a management system to meet this FLPMA mandate and to guide its decisions and actions. There are four key elements in this management system:

- a planning and decisionmaking process that provides a balance among the range of alternative uses, includes public input, and directs BLM's implementation activities;
- implementation of land use plans, particularly by making on-the-ground improvements that increase productivity and resource values on the public lands;
- monitoring of resource conditions on the public lands to determine the effectiveness of a wide range of activities; and
- service, operations, and maintenance activities to meet the public's needs and to provide cost effective protection of existing investments.

A key to understanding BLM's operation is to realize that a decision made to delay or expedite one BLM program, one resource, or one element of BLM's management system necessarily affects and involves other BLM programs and resources as well. Under existing statutes and Executive Orders, for example, BLM cannot issue a coal lease, approve a transmission route, or construct a range improvement project before impact assessment work is completed. Similarly, BLM cannot designate a special environmental area or permit off-road vehicles to use a particular area without first considering how other resources in the area will be affected and what other uses might be made of the land.

BLM's management process is designed to resolve many of the conflicting demands placed upon the public lands and to facilitate the development of needed resources while protecting other resource values from inadvertent damage or destruction. Recent appropriation requests have reflected a strong commitment to this balanced multiple use management approach.

F. BLM's BUDGET

The BLM program is funded through six major operating appropriations, several minor permanent and trust appropriations, and reimbursements from other Federal agencies for work performed on their behalf. In addition, the BLM Budget includes one

annual appropriation and numerous permanent appropriations that provide funds to state and local governments in which Federal land resources are located, either as payments-in-lieu of taxes or as shared revenues from the sale, leasing, or disposition of resource commodities.

A history of the total funding available to BLM since FY 1980 includes the following, recorded in millions of dollars:

	FY 1980	FY 1981	FY 1982	FY 1983
BLM Operating Appropriations.....	435.6	491.3	502.0	427.9
Payments-in-Lieu of Taxes.....	108.0	103.0	95.5	96.3
Permanent Payments to States, etc.....	370.6	433.8	637.7	579.8
Other Miscellaneous.....	4.6	7.3	4.9	6.4
Total	918.8	1,035.4	1,240.1	1,110.4

II. Revenues and Receipts



II. REVENUES AND RECEIPTS

The Bureau of Land Management is a primary collector of revenues. Gross receipts from the lease, use, and sale of public lands and resources totaled approximately \$1.2 billion in FY 1983. Of this amount, \$506.5 million will be returned to the States, \$361.7 million was given to the Reclamation fund, \$143.2 million was given to other Federal agencies, and the remaining \$176.8 million went into the general fund of the U.S. Treasury. By comparison, only \$400 million was appropriated from the Treasury to BLM for operating expenses in FY 1983. This is a ratio of \$3 collected for every \$1 appropriated.

The development and use of the public lands and resources managed by BLM generate receipts from a variety of sources. Accelerating interest in energy and mineral exploration and development on public lands is strongly reflected in the increasing 1982, 1983, and projected 1984 receipts from BLM's mineral leasing programs; a trend that became most notable in 1973 when international energy supplies became increasingly unstable and costly. Timber receipts were \$87.4 million in FY 1983. BLM also generates receipts from a variety of other sources, including sales of public lands and materials, fees and commissions, grazing, right-of-way leases, and permits.

Receipts from the development and use of public land resources were allotted in FY 1983 under a variety of public land payment programs as follows:

- The Federal Coal Leasing Amendments Act of 1975 amended the Mineral Leasing Act to raise the share of mineral leasing receipts returned to the States from 37.5 percent to 50 percent. FLPMA amended the Mineral Leasing Act to provide that these funds may be used for any purpose a state legislature directs, with priority to be given to the political subdivisions of the State that are socially or economically impacted by mineral development.
- In 1976, Congress passed the Payments in Lieu of Taxes (PILT) Act to authorize payments to local units of government containing Federally owned tax-exempt lands. These payments supplement revenue sharing funds and are made directly to local governments. BLM is responsible for processing PILT payments for Federal entitlement lands administered by BLM and six other Federal agencies. In FY 1983 BLM processed payments totaling about \$95.8 million.

Table 1 lists BLM receipts for FY 1982, 1983, and projections for 1984:

TABLE 1—BUREAU OF LAND MANAGEMENT RECEIPTS

	FY 1982	FY 1983	FY 1984 Estimated
STATEMENT OF PUBLIC LANDS RECEIPTS			
Mineral Leases and Permits	\$1,420,568,838	\$1,035,438,889 ¹	--
Sales of Public Lands & Materials (includes Burton-Santini Act sales in Nevada).....	3,598,726	11,528,300	18,112,000
Sales of Public Timber.....	6,346,266	7,585,749	11,500,000
Simultaneous Oil and Gas Filing Fees	--	-- ²	112,500,000
Fees and Commissions.....	4,427,619	2,342,319	2,290,000
O&C Lands (Timber Sales).....	78,596,218	94,428,391	115,000,000
Coos Bay Wagon Road Lands (Timber Sales).....	2,458,116	4,835,909	3,400,000
Grazing Fees	20,878,691	16,699,399	14,929,000
Rights-of-Way	1,299,440	1,942,446	1,600,000
Miscellaneous Leases and Permits.....	81,617,788	410,532	410,000
Nonoperating Revenue ³	8,655,510	10,909,780	14,200,000
Other ⁴	512,855	586,849	1,127,000
Rent of Land	1,323,897	1,456,887	512,000
Total	\$1,630,283,964	\$1,188,165,449	\$295,580,000
ALLOCATIONS OF PUBLIC LANDS RECEIPTS			
States and Counties	653,708,484	506,487,975	49,511,000
Reclamation Fund.....	487,530,908	361,663,767	13,437,000
Indian Trust Fund	5,274	61,488	0
General Fund.....	489,039,298	319,952,219	232,632,000
Total	\$1,630,283,964	\$1,188,165,449	\$295,580,000

¹Function transferred to Minerals Management Service in FY 1984.

²Commencing FY 1984, simo filing fees shown as a new category for revenue; prior years revenues consolidated in Mineral Leases and Permits.

³Incidental receipts from fines, taxes, etc., which are unrelated to routine public land administration.

⁴Receipts from miscellaneous materials sales under the Materials Disposal Act.

III. State and Local Shares



III. STATE AND LOCAL SHARES

The Bureau of Land Management's most direct fiscal impact upon public land States and localities is through revenue sharing and other direct payments. In the decade 1973 through 1983, state and local governments in the public land States received \$3.7 billion from BLM as their share of revenues collected from the lease or sale of public lands resources and as in-lieu payments for tax-exempt lands. The amount of money going to these States each year rose from \$103.9 million in 1973 to \$507 million in 1983.

A. REVENUE SHARING

Receipts are generated from mineral leasing and production (royalties), grazing fees, timber sales, and other user fees.

The dominant source of revenue is the energy mineral leasing program. Actual onshore mineral receipts amounted to \$822 million in 1981, \$1.4 billion in fiscal year 1982 and \$1.0 billion in 1983. Table 2, on the distribution of BLM receipts to states during Fiscal Year 1983, indicates the sources of revenue sharing and shows the dominant contribution of mineral leases.

Each State in the lower 48 receives 50 percent, and the State of Alaska 90 percent, of all mineral leasing revenues collected from public lands within its boundaries. The State of Alaska will receive 50 percent of revenues received from the National Petroleum Reserve-Alaska (NPR-A).

The Federal Coal Leasing Amendments Act of 1975 amended the Mineral Leasing Act to raise the States' share of Federal mineral receipts from 37.5 percent to 50 percent. An amendment to the Mineral Leasing Act by FLPMA liberalized the use of these funds, stating that they may be used for any purpose a state legislature directs, with priority to be given to the State subdivisions that are socially

or economically impacted by development of minerals leased under the Mineral Leasing Act.

B. PAYMENTS IN LIEU OF TAXES

Local government units within States in the West are the principal beneficiaries of the 1976 Payments in Lieu of Taxes Act. This law was passed to provide Federal payments to those areas where large portions of land are in Federal ownership and, therefore, are exempt from local property taxes. Serving as a supplement to revenue sharing funds, Payments in Lieu of Taxes (PILT) are made directly to local governments and may be used for any governmental purpose.

Lands eligible for PILT consist of federally owned lands in the National Forest System and the National Park System, lands administered by BLM, lands dedicated to the use of federal water resource development, dredge disposal areas under the jurisdiction of the Army Corps of Engineers, and effective as of FY 1979, National Wildlife Reserve Areas, inactive and semi-active Army installations, and certain lands donated to the United States Government. The Act specifically prohibits payments for lands (but not certain donated lands) that were tax exempt before being acquired from state or local governments.

The PILT computation process requires each State to submit data on the amount of revenue sharing funds received by units of local governments in the preceding fiscal year. This amount is then deducted from the PILT payments for the current year. In Fiscal Year 1983, \$164.8 million was deducted from PILT payments as a result of the revenue sharing provision.

Since PILT payments were started on September 30, 1977, more than \$705 million has been paid to the States; about \$96 million of that amount was paid in FY 1983. Table 3 lists PILT payments to the States in FY 1981, 1982, and 1983.

TABLE 2—PAYMENT OF BUREAU OF LAND MANAGEMENT RECEIPTS TO STATES AS OF SEPTEMBER 30, 1983

States	Mineral Leases and Permits	Forage Receipts Outside Taylor Grazing Districts	Forage Receipts Inside Taylor Grazing Districts	Sale of Public Land and Timber	Other	Total
Alabama.....	379,222	00	00	660	00	379,882
Alaska	48,169,554	00	00	6,326	00	48,175,880
Arizona	4,294,975	128,468	103,078	2,681	00	4,529,202
Arkansas	579,454	00	00	00	00	579,454
California.....	35,829,205	139,976	31,840	35,329	00	36,036,350

**TABLE 2—PAYMENT OF BUREAU OF LAND MANAGEMENT RECEIPTS TO STATES AS OF
SEPTEMBER 30, 1983—Continued**

States	Mineral Leases and Permits	Forage Receipts Outside Taylor Grazing Districts	Forage Receipts Inside Taylor Grazing Districts	Sale of Public Land and Timber	Other	Total
Colorado	33,648,997	43,891	113,831	29,599	00	33,836,318
Florida	46,802	00	00	00	160	46,962
Idaho	4,346,244	35,108	283,970	12,351	00	4,677,673
Kansas	1,010,285	117	00	00	00	1,010,402
Louisiana	708,718	00	00	00	00	708,718
Michigan	69,916	00	00	00	00	69,916
Mississippi	7,419,425	00	00	00	00	7,419,425
Minnesota	00	00	00	87	00	87
Montana	18,488,530	167,266	171,302	9,240	579,662	19,416,000
Nebraska	258,917	1,167	00	00	00	260,084
Nevada	12,184,632	34,803	406,567	70,402	00	12,696,404
New Mexico	131,240,911	223,491	335,817	12,363	21,125	131,833,707
North Dakota	9,177,260	9,152	00	00	00	9,186,412
Oklahoma	2,024,918	326	00	00	5,543	2,030,787
Oregon	5,105,221	44,789	196,710	*40,042,475	00	45,389,195
South Dakota	1,525,838	64,118	00	961	00	1,590,917
Utah	36,162,287	00	238,732	14,672	1,610	36,417,301
Washington	823,438	26,588	00	13,397	00	863,423
Wyoming	180,720,075	437,167	283,021	24,180	00	181,464,443
Total	534,214,824	1,356,427	2,164,868	40,274,887	607,940	578,618,946

*The majority of the \$40 million is for timber receipts.

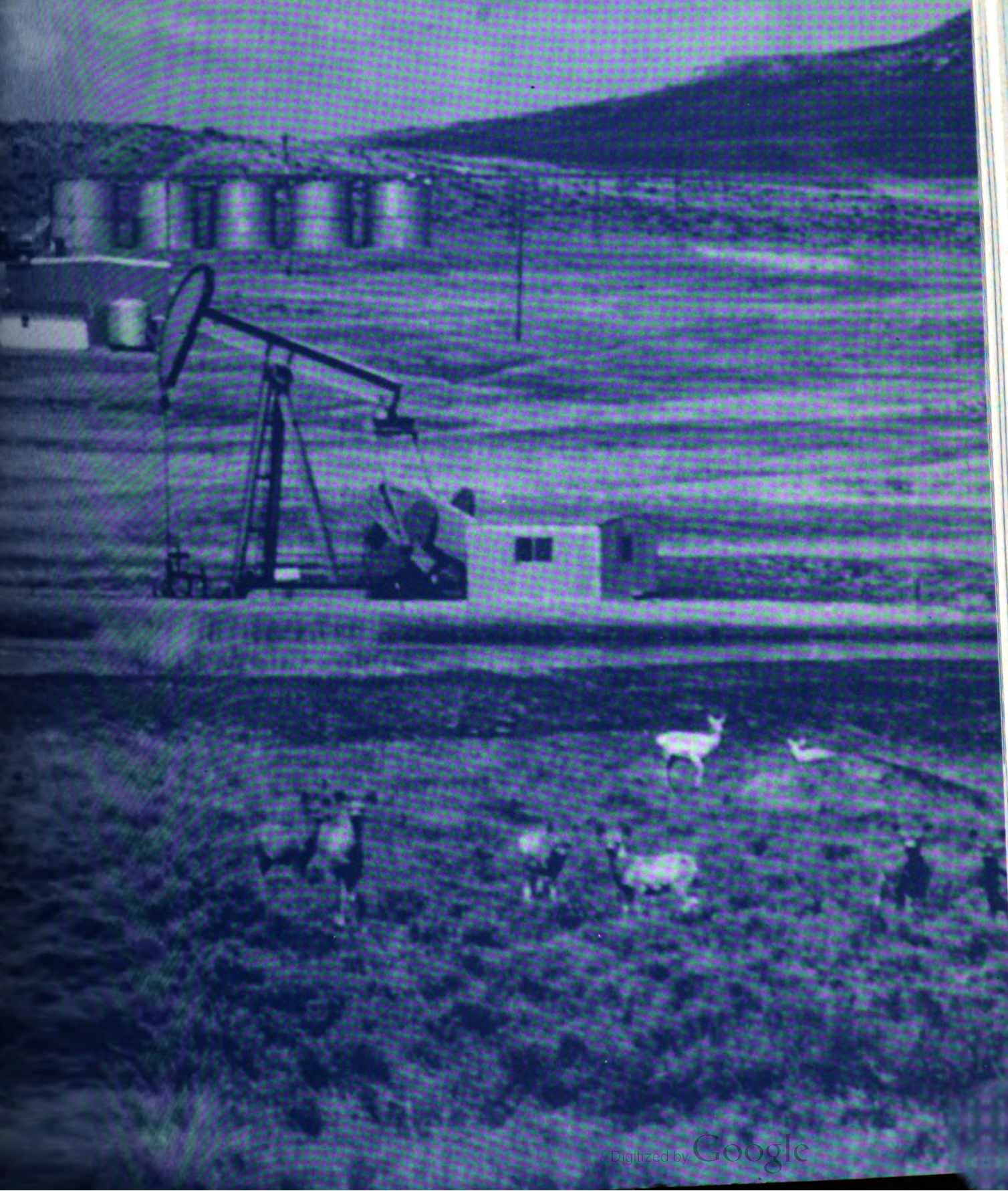
**TABLE 3—SUMMARY OF PAYMENTS IN LIEU OF
TAXES BY STATE**

	FY 1982	FY 1983
ALABAMA	\$112,030	\$114,758
ALASKA	3,475,036	3,671,945
ARIZONA	7,684,920	7,571,230
ARKANSAS	1,195,865	1,282,652
CALIFORNIA	10,860,626	10,123,180
COLORADO	6,608,468	6,978,006
CONNECTICUT	12,208	14,527
DELAWARE	4,520	4,360
DIST. OF COLUM.	5,600	5,831
FLORIDA	1,756,841	1,715,928
GEORGIA	713,699	758,293
GUAM	211	753
HAWAII	9,774	10,022
IDAHO	6,868,043	7,065,943
ILLINOIS	281,411	268,243
INDIANA	262,617	222,273
IOWA	117,595	120,577
KANSAS	331,418	318,425
KENTUCKY	659,544	669,904
LOUISIANA	160,958	172,254
MAINE	38,798	47,385
MARYLAND	77,748	55,408
MASSACHUSETTS	76,783	62,441
MICHIGAN	1,317,094	1,301,441
MINNESOTA	1,045,207	1,043,164
MISSISSIPPI	335,393	380,032
MISSOURI	527,873	773,646
MONTANA	7,213,567	7,292,394
NEBRASKA	270,006	276,543

**TABLE 3—SUMMARY OF PAYMENTS IN LIEU OF
TAXES BY STATE—Continued**

	FY 1982	FY 1983
NEVADA	5,069,148	5,202,784
NEW HAMPSHIRE	297,586	294,227
NEW JERSEY	62,789	53,835
NEW MEXICO	8,934,783	9,163,185
NEW YORK	149,526	164,312
NORTH CAROLINA	1,153,918	1,180,825
NORTH DAKOTA	513,314	519,974
OHIO	431,078	370,175
OKLAHOMA	711,667	738,160
OREGON	2,531,671	2,580,305
PENNSYLVANIA	364,256	318,626
PUERTO RICO	2,597	13,799
RHODE ISLAND	0	0
SOUTH CAROLINA	102,690	119,797
SOUTH DAKOTA	1,613,128	1,749,807
TENNESSEE	525,563	615,156
TEXAS	1,362,537	1,234,734
UTAH	7,929,891	8,156,154
VERMONT	59,887	108,471
VIRGINIA	1,268,268	1,173,547
VIRGIN ISLANDS	19,255	20,813
WASHINGTON	1,594,873	1,438,969
WEST VIR- GINIA	754,481	766,909
WISCONSIN	543,490	542,842
WYOMING	6,973,505	7,019,336
TOTAL	\$94,993,754	\$95,868,300

IV. BLM Operating Programs



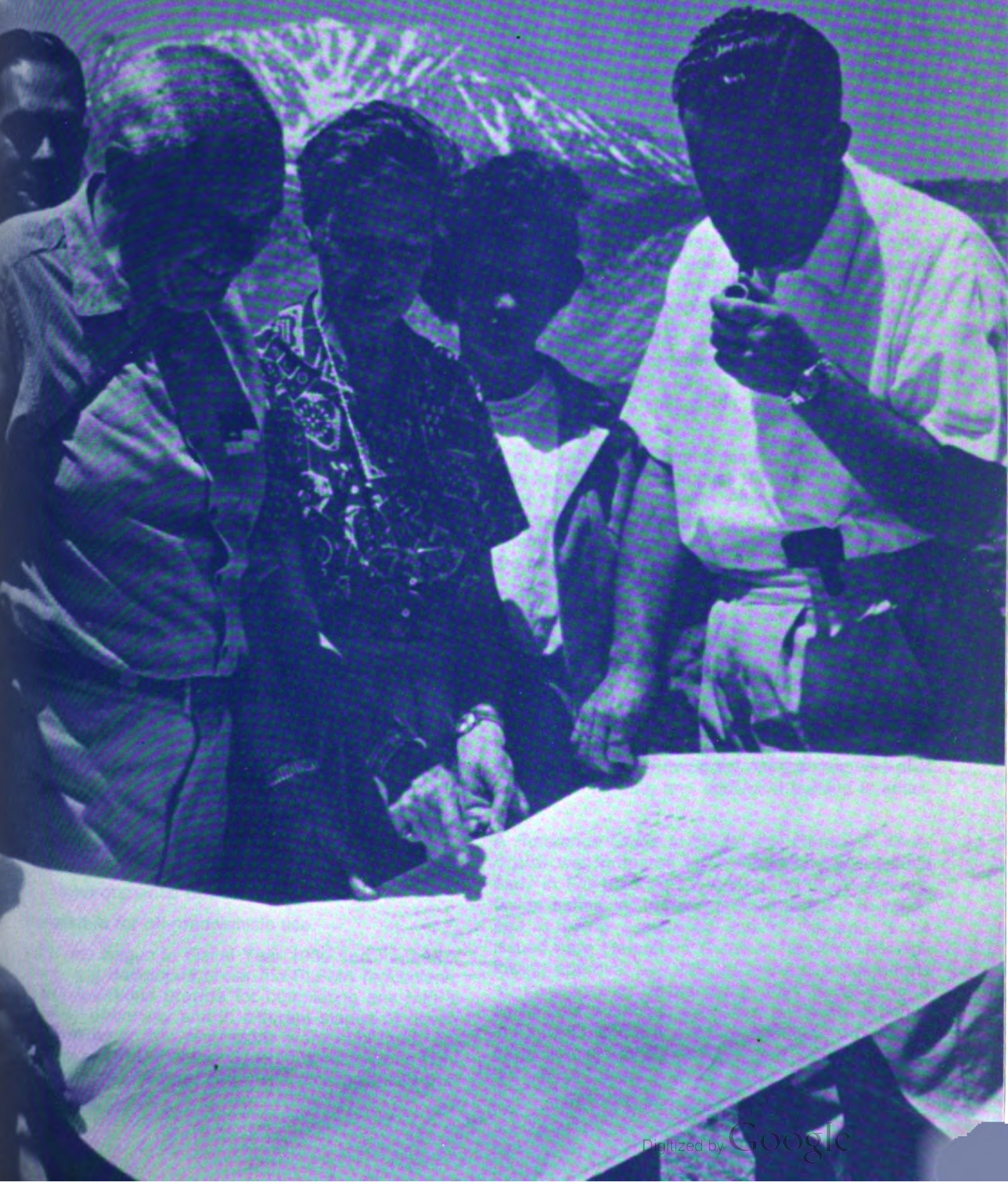
IV. BLM OPERATING PROGRAMS

INTRODUCTION

The following sections summarize BLM's activities in fiscal year 1983. Activities between the close of the fiscal year and the publication of this report will be summarized in the FY 1984 report. Each program chapter has five parts: (1) a brief program description; (2) a progress report; (3) a description of

public issues associated with the program; and (4) a section on budget. The FY 1983 appropriation level (see budget sections) was adjusted to include enacted supplementals (including pay) and Minerals Management Service transfers. The appendix provides a brief description of the organizational structure of BLM.

A. Resource Management Planning



A. RESOURCE MANAGEMENT PLANNING

a) Program Description

The Federal Land Policy and Management Act (FLPMA) directed BLM to develop land use plans for all public lands. Responding to this new requirement, BLM developed comprehensive resource management planning regulations which became effective on September 6, 1979. Since that time, BLM has begun to develop procedures and processes to implement those regulations and provide for an orderly transition from its old planning system, Management Framework Plans (MFP's), to its new system, Resource Management Plans (RMP's).

Additionally, BLM has amended the planning regulations to help shorten time frames, reduce costs, make the process more responsive, and give a new, more active role to state governments. The regulations became effective July 5, 1983.

The resource management planning process is the core of BLM's resource management decisionmaking. It provides for interdisciplinary planning for the public lands and their resources. These plans form the basis for making decisions on the protection and management of critical areas and the allocation of public lands among uses or levels of use. The planning schedule, which is published annually, is a key feature of the program and is designed to facilitate public participation.

A few examples of decisions made through this system include determining which lands will be:

- acceptable for further consideration for coal leasing;
- available for oil and gas, oil shale, and other energy developments;
- suitable for transfer to or exchange with State and local entities, or for sale to the private sector;
- available for timber production;
- recommended as suitable or unsuitable for the National Wilderness Preservation System;
- selected for special attention as Areas of Critical Environmental Concern; and
- available for off-road vehicle use.

All plans begun in Fiscal Year 1980 and thereafter are being developed under the FLPMA regulations. The regulations provide for completing any MFP's already underway and in different stages of development when the regulations were published. Accordingly, on December 3, 1979, a notice was published in the *Federal Register* indicating those por-

tions of the new regulations that will apply to ongoing plans.

Additionally, BLM intends to make maximum use of the plan amendment process. Use of the amendment process with existing MFP's accelerates the response time of the planning process to new proposals, developments, or policies. This management tool will effectively meet program requirements such as energy development that need immediate attention.

b) Progress Report

BLM completed the first RMP in FY 1983 in the Glenwood Springs Resource Area, Glenwood Springs, Colorado. Twenty-one additional RMP's are scheduled for completion in FY 1984.

BLM also prepared a set of draft manual sections for Resource Management Planning. This guidance, to be issued in FY 1984, is intended to assist field offices in implementing the regulations efficiently and effectively.

A comprehensive Communication/Training Program was launched in late August 1982 with the issuance of a *Reference Guide to Pilot RMP Experiences*. The program is proceeding on schedule. Several reference guides, planning aids, and other guidance are planned for FY 1984.

In FY 1981 a Social and Economic Program was established in the Planning Office to develop guidance leading to more socially responsive and economically efficient decisions. The 2-year Coal Social Effects Project was completed in late FY 1982, resulting in a *Guide to Social Assessment*, a *Review of the Literature*, 10 community studies, and a *Summary Research Report*. A training program on the *Guide to Social Assessment* was pilot tested in FY 1983, and additional training is anticipated.

A *Reference Guide to Social and Economic Techniques* was prepared in FY 1982 and was issued early in FY 1983 as the second in the Reference Guide series. A *Multiple Use Questionnaire Package* is being assembled and is intended to be issued as a Reference Guide in late FY 1984 following approval by OMB. In addition, initial efforts at investigating, researching, and formulating a social and economic mitigation policy were begun in FY 1983, and a final policy and Reference Guide are scheduled for FY 1984.

c) Issues

The primary emphasis in FY 1984 will be to share the experiences of the first RMP's through the Communication/Training Program to improve the quality of RMP's being prepared.

d) Budget and Performance Analysis

l) Administrative Responsibility

Program Administrator: Deputy Director, Lands and Renewable Resources

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	8,661	8,704	8,891

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	8,278	8,521	8,891
Work Years	244	234	230

4) Performance

Work Units (by number completed)	1982 Actual	1983 Actual	1984 Planned
Resource Management Plans	0	1	21
Transition Management Framework Plans	36	24	3
Plan Amendments	5	35	29
Interagency Plans	6	0	1

B. Energy and Minerals



B. ENERGY AND MINERALS

B.1. GEOLOGY AND MINERAL RESOURCES

a) Program Description

Geology and Mineral Resources consists of several programs, including mineral classification and assessment, paleontology, hazardous materials, and groundwater. Input on minerals, inventory, and geology is provided to other programs such as mineral leasing, withdrawal, wilderness, and land sales and exchanges, as well as being used in land use planning.

The paleontology program is intended to provide management and protection of the fossil resources occurring on public lands. The BLM's role in managing paleontologic resources involves the use of existing data to determine what paleontologic resources are present and which ones require attention or protection.

A major part of BLM's assessment function is the Geology, Energy, and Minerals Program (GEM), which uses existing mineral information from inventories, computerized data bases, and various published sources to provide mineral information for BLM programs. New information is gathered by BLM personnel, other agencies, and through contracts. The BLM's role in providing and using mineral information is mandated by FLPMA for land use planning. BLM continues to work with the U.S. Bureau of Mines and the U.S. Geological Survey to assure that minerals information is shared and studies are not duplicated between the Agencies.

The objectives of the Groundwater Program are to see that BLM complies with State and Federal requirements regarding the use and protection of groundwater. This program operates under the mandate of FLPMA, the Clean Water Act, Safe Drinking Water Act, and Resource Conservation and Recovery Act. The BLM is concerned with the effect of groundwater on mineral development, the effect of mineral development on groundwater, and protection of aquifers when possible.

Mineral land classification was one of the main missions of the U.S. Geological Survey as stated in the Survey's Organic Act of 1879. The function was transferred to BLM in the merger with the Minerals Management Service's onshore program in April 1983. Geological, geophysical, and engineering data are collected and compiled to classify lands that are prospectively valuable for the occurrence of leasable minerals, and to delineate the boundaries of areas containing leasable minerals that are presently or potentially producible and designate

them as known leasing areas (KLA's). KLA's are then subject to competitive leasing.

The BLM prepares and reviews its classification criteria from time to time in order to make the classification actions uniform and objective. To identify which lands are underlain by leasable minerals within the limits set by the classification criteria, BLM geologists prepare geologic maps, collect samples, and make laboratory analyses to determine the quality or grade of a mineral commodity.

Development of the Hazardous Materials Program continued in FY 1983 and will proceed through FY 1984 as Hazardous Materials Management. The program will be designed by BLM in conjunction with applicable State and Federal laws. The Resource Conservation and Recovery Act and the Comprehensive Response Compensation and Liability Act are two of the laws under which BLM expects to operate for hazardous materials. Hazardous materials is not only a minerals issue; it includes lands, forestry, range, and other BLM programs.

b) Progress Report

Proposed rulemaking, published in August 1982 and due to be published in revised form in spring 1984, will assist in stabilizing BLM's Paleontology Program and providing a means to manage and protect fossil resources effectively.

The BLM is striving to make lands available for mineral exploration and development through public comment and review of past actions affecting land availability. Included in this effort are the areas of critical mineral potential program, withdrawal application and renewal review, and resource management plan review. Also, a de facto mineral withdrawal inventory of leasable mineral lands commenced in FY 1983.

To assist BLM in evaluating mineral resources, six contracted regional studies were completed during FY 1983. Studies of Geology, Energy, and Minerals were completed by BLM personnel for areas where minerals issues were identified during the land use planning process. The information available for analysis has been greatly enhanced during FY 1983 by the merger of MMS and BLM. Oil and gas well logs, the results of solid leasable mineral exploration, and a multitude of geological and geophysical reports are now easily accessible for analysis in support of land use planning.

The BLM is developing groundwater guidelines that will provide technical guidance to be used within

the planning process for the identification and use of existing groundwater data. These guidelines primarily address lands having potential for energy/mineral development and lands affected by hazardous materials issues.

In FY 1983, a total of 1,579,517 acres were added to the Known Geologic Structures (KGS's) in the United States. This brings the total number of acres in KGS's to 24,631,822.

c) Issues

The issues now facing the Paleontology Program are how to effectively manage paleontologic resources on public lands and clarify regulations following the review of approximately 1,200 public comments on a 1982 proposed rulemaking.

The main GEM issue is assuring that adequate mineral data is considered in land management decisions. The BLM provides minerals information for many land management decisions. Most GEM studies are used to answer issues raised in the land use planning process. The Bureau also continues to encourage the public to provide the GEM program with minerals data through participation in the wilderness study and land use planning processes, as well as through direct contact with BLM minerals personnel.

Other issues are to manage and protect groundwater on public lands and to provide access to these resources for mineral development in a safe manner that complies with State and Federal laws. At present BLM is developing much-needed guidance in technical areas.

Assuring that classification is up to date so that BLM will receive fair market value for lands that should be leased competitively rather than noncompetitively is an important issue.

The safety of BLM personnel when dealing with hazardous materials is of prime concern, as are future costs of cleanups, location and verification of sites, and natural resource damage assessments.

d) Budget and Performance Analysis

Geology and Mineral Resources is funded under the eight Minerals subactivities.

B.2 INSPECTION AND ENFORCEMENT

a) Program Description

Terms of the Federal Oil and Gas Royalty Management Act of 1982, Public Law 97-451, require the

Secretary to "enforce effectively and uniformly existing regulations under the Mineral Leasing Laws providing for inspection of production activities on lease sites on Federal and Indian Lands." At year end 1982, 145,365 oil and gas leases were under supervision of BLM on Federal and Indian lands, of which 18,826 were producible with 42,797 active oil and gas well completions. In addition, 4,382 applications for permits to drill were approved and 3,239 new oil and gas wells were started. Approximately 20 percent of the producible leases and 12 percent of the total leases are on Indian lands. Although not conducted under the authority of FLPMA, this activity is included as a vital part of BLM's energy and minerals program.

b) Progress Report

Under direction of the Office of Inspection and Enforcement, a nationwide inspection and enforcement strategy was developed to assure that the performance of oil and gas lessees is properly monitored for reporting production, storage, transportation, disposal of oil and gas, prevention of waste, conservation of resources, detection of trespass, environmental protection, proper abandonment, and compliance with leasing regulations and lease terms. Implementing this strategy requires establishing priority criteria for State inspection plans based on profiles of operator compliance, magnitude of production, environmental risks, public health and safety risks, and other pertinent factors.

Under this strategy, Quality Assistance Teams (QAT's) were established to assure lessee compliance, uniform inspections, and firm but fair enforcement by monitoring oil and gas operations through independent inspections. During FY 1983, 9 QAT inspections were made in 13 Districts in 8 major oil and gas producing States.

To prevent oil theft, final site security regulations were published in the *Federal Register* on July 11, 1983. Proposed rulemaking was published in the *Federal Register* on September 16, 1983, with provisions for assessing civil penalties for certain violations to assure operator compliance through uniform enforcement.

To augment the Federal inspection force, cooperative agreements with various States and Indian tribes are being negotiated for training State and Indian oil and gas inspectors. An ongoing training program is being developed to maintain a full force of Federal inspectors and to increase the professional skills of the inspectors.

During the first three quarters of FY 1983, 12,700 inspections were made, 3,280 incidents of noncom-

pliance were issued, and 365 shut-ins were imposed.

c) Issues

The Onshore Oil and Gas Inventory and Inspection System, known as MS-1, was developed and will be implemented in FY 1984 to improve the quality of the inspection program, reduce inspectors' office time, allow comprehensive oversight of the inspection and enforcement program, and assist in determining inspector resource needs and uses.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Minerals

Field Administrators: State Directors

2) Funding

Inspection and Enforcement is funded as part of the oil and gas program.

B.3. OIL AND GAS MANAGEMENT

a) Program Description

Under the terms of the Mineral Leasing Act of 1920, the Mineral Leasing Act for Acquired Lands of 1947, and the Alaska National Interest Lands Conservation Act (ANILCA) of 1980, BLM is responsible for oil and gas leasing on about 520 million acres of public lands and national forests, acquired land, and private land where mineral rights have been retained by the Federal Government. The Department of the Interior Fiscal Year 1981 Appropriations Act authorizes leasing in the National Petroleum Reserve-Alaska.

The U.S. Geological Survey (GS) estimates that the Nation's proven oil reserves amount to about 35 billion barrels, of which about 90 percent are onshore and 4.5 percent are on Federal lands. Total remaining recoverable gas reserves are estimated at 208 trillion cubic feet, of which 83 percent are onshore and 6.1 percent are on Federal lands.

The Mineral Leasing Act provides for both competitive and noncompetitive oil and gas leasing. The differences are described in the chart below. Roughly 97 percent of all Federal leasing is noncompetitive. Currently, the greatest activity in these leases is in Wyoming, Montana, New Mexico, Utah, and Colorado. Individual lessees are limited to a total acreage per State of 492,160 acres: 246,080

acres for public land and 246,080 acres for acquired land in any State, except Alaska where lessees are limited to 300,000 acres in each of the two leasing districts.

In December 1982, the Secretary transferred all functions related to royalty and mineral revenue management, including collection and distribution, from the BLM to the Minerals Management Service (MMS). Additionally, all MMS onshore minerals management functions on non-Indian lands, including resource evaluation, approval of drilling permits and mining or production plans, and inspection and enforcement were transferred to the BLM from MMS. In February, the Secretary's responsibilities for approving and supervising operation of Federal oil and gas leases on Indian Land issued under the Allotted Indian Lands Leasing Act of 1909 and the Unallotted Indian Leasing Act of 1938 also were transferred to BLM.

During 1983, over 2,200 operators were actively engaged in drilling and producing oil and gas from approximately 15,300 Federal leases and about 3,900 Indian leases located in 23 States. Almost all of the production of oil and gas from onshore Federal and Indian lands is located in States west of the Mississippi River. The largest production occurs in Wyoming and New Mexico, with Montana, North Dakota, Colorado, Utah, California, and Alaska also contributing significant amounts.

The major functions of the oil and gas operations program are:

- To select tracts for competitive leasing, conduct lease sale, and accept or reject bids tendered.
- To offer lands for simultaneous oil and gas leasing, receive applications, conduct drawing to establish priority, and provide security against abuse of the program.
- To open lands to over-the-counter noncompetitive leasing and process applications to lease.
- To issue all onshore oil and gas leases properly applied for under the Mineral Leasing Act, the Mineral Leasing Act for Acquired Lands, and ANILCA; receive application fees and rentals; approve assignments; and conduct adjudicative actions as necessary.

Oil and Gas Leasing

	Noncompetitive Leases	Competitive Leases
Leasing Method ¹	Over the counter (OTC) to the first qualified applicant. When these leases expire or otherwise terminate they are reoffered by lottery through the Simultaneous Oil and Gas Program (SOG).	Sealed bid issued on a bonus bid basis ²
Location	Outside a Known Geologic Structure (KGS) ³	Inside a Known Geologic Structure (KGS) ³
Size	Up to 10,240 acres	Up to 640 acres in Continental U.S.; up to 2,500 acres in non-North Slope Alaska; and up to 60,000 acres in NPR-A
Annual Rental	OTC: \$1 per acre. SOG: \$1 per acre first 5 years, \$3 per acre thereafter.	\$2 per acre in Continental U.S. and non-North Slope Alaska; \$3 per acre in NPR-A
Lease Period	Ten years, but can be extended when production is established ⁴	In NPR-A 10 years, elsewhere: five years, but can be extended when production is established ⁴
Royalties on Production	12.5 percent on oil and gas	12.5 to 25 percent on oil; 12.5 to 16.66 percent on gas; 16.66 percent in NPR-A FY 82 lease sales on oil and gas

¹Leasing in NPR-A is on a competitive basis only, and bidding systems are those allowed in the OCS Lands Act Amendments of 1978. ² A bonus is the per-acre cash amount an applicant bids on a lease tract. The lease is issued to the applicant with the highest bonus bid. ³Favorable Petroleum Geologic Province (FPGP) in non-North Slope Alaska. ⁴Can also be extended if other statutory conditions exist, such as drilling or reworking operations on the last day of the primary term of a lease exist.

b) Progress Report

Oil and gas leasing regulations found at 43 CFR Groups 3000 and 3100 were revised on July 22, 1983. The revised regulations reduce the regulatory burden imposed on the public and provide access to public lands in Alaska for oil and gas exploration and development.

During FY 1983, a total of 13,957 leases containing 19,998,768 acres were issued, including 132,916

acres by competitive bidding, 9,966,405 acres by simultaneous oil and gas leasing, and 9,889,446 acres by the over-the-counter leasing method.

The final programmatic EIS for oil and gas leasing in the National Petroleum Reserve, Alaska (NPR-A) was published in March 1983, followed by the third NPR-A lease sale on July 20, 1983. Of the 84 tracts containing 2,195,845 acres offered, high bids totalling \$16,725,660 were received on 18 tracts containing 419,618 acres. Three NPR-A leases that had been offered at a prior lease sale during FY 1982 were issued during FY 1983 and received bids that were initially rejected. The decision to reject the bids was appealed and subsequently remanded by the IBLA for reconsideration.

In FY 1983, 2,969,659 acres were opened for leasing in the Denali, Tiekkel, and Slana leasing areas under the Alaska National Interest Lands Conservation Act (ANILCA). During the year, 414 leases on 1,654,738 acres were issued.

Provisions for reinstatement of oil and gas leases at title IV of FOGPMA have been implemented through internal instruction to field offices. Regulations implementing the provisions of title IV have been developed and will be released during FY 1984.

The consolidation of forms for the assignment of various types of interests in geothermal and oil and gas leases was begun in FY 1983, as was the development of a consolidated oil and gas application to lease and lease form. This action will reduce the paperwork burden on both the public and BLM.

The backlog of pending oil and gas lease applications has remained nearly zero throughout FY 1983 in contrast with the backlog of more than 13,400 cases that existed in January 1982.

By the close of FY 1983 nearly all oil and gas cases had been entered into the Automated Lands and Minerals Records System (ALMRS). This automated system allows BLM to more efficiently manage the leasing program and will provide the public with more readily accessible information.

Oil and gas unit operation regulations at 30 CFR 226 were revised on June 10, 1983. These rules, along with the general oil and gas operating regulation of 30 CFR Part 221, were transferred to 43 CFR Group 3100 as Parts 3180 and 3160, respectively, on August 12, 1983.

New drilling activity on Federal and Indian lands has continued at a high level since about 1974. Between 2,500 and 3,500 new wells were drilled each year, resulting in completion of 1,500 to 2,000 new producible wells each year. When the total statistics for FY 1983 are tabulated, in spite of a general nationwide decline, an estimated 2,000 new wells

will have been completed for production on Federal and Indian lands.

As of March 31, 1983, there were 21,534 oil completions and 14,475 gas completions on Federal land, and 4,857 oil completions and 3,225 gas completions on Indian land for a grand total of 44,091 producible completions and another 7,004 service wells for which BLM is responsible. Production from these wells consistently has been slightly over 5 percent of the total domestic oil production and slightly over 6 percent of domestic gas production.

c) Issues

The question of leasing and drilling in wilderness study areas attracted public and congressional attention during FY 1983. Oil and gas leases are only to be issued in BLM wilderness study areas on lands adjacent to producing oil and gas fields or areas that are prospectively valuable. Leases can only be processed with a no surface occupancy stipulation, with entry allowed only if the lands are accessible by directional drilling or other nonsurface disturbing method from outside the BLM WSA.

Oil and gas operators express concern that applications for permit to drill continue to be processed in a timely manner, allowing access to lands already under lease so they can begin their exploratory or developmental work. Such timely access is critical to industry in planning their work. In the same vein, operators are expressing concern that associated applications such as for unitization, communitization, National Gas Policy Act determinations, well workovers, rights-of-way, and installation of production equipment also are processed promptly. Conversely, many interest groups, as well as state and local governmental units and tribal officials are expressing concern that their interests must be accorded a high priority in the decisionmaking process and that they should have direct involvement during consideration of the oil and gas development projects.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	17,859	28,666	37,267

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	17,547	28,556	37,267
Work Years	585	860	946

4) Performance

	1982 Actual	1983 Actual	1984 Planned
Leases Issued.....	20,100	13,957	20,000
Assignments	47,029	45,000	45,000
Simultaneous Oil and Gas Lease Applications Pro- cessed (in millions).....	1.5	1.1	*.4
Applications for Permit to Drill Processed.....	5,195	3,687	4,500
Review of Other Operator Proposals.....	20,570	21,125	22,650
Inspections Conducted.....	29,000	28,000	35,000

*Estimated. Program suspended October 1983; leasing to resume after publication of final regulations.

B.4. GEOTHERMAL PROGRAM

a) Program Description

Under the authority of the Geothermal Steam Act of 1970, BLM issues leases on public, withdrawn, and acquired lands administered by the Departments of the Interior and Agriculture. Leasing within known geothermal resource areas (approximately 2.0 million acres) is based on competitive bidding. Lands not within known areas may be leased to the first qualified applicant. All leases are for 10-year terms and diligent exploration of leases is required.

The merger of post-lease operational supervision into the BLM brought responsibility over all existing and newly issued geothermal leases. The major functions of the program are:

- Review and approval of all applications to conduct operations to assure technical competence, use of the latest state-of-the-art procedures and equipment, and that due consideration is given to resource conservation and environmental protection.
- Inspection of operations to assure compliance with laws, regulations, lease terms, and any conditions specified when approval was granted.

- Assurance that production is handled and measured properly so that royalty due the United States or the Indians is paid on the correct amounts.

b) Progress Report

During FY 1983 approximately 58,000 acres within known geothermal areas received high bonus bids of \$7.2 million. An additional 400,000 acres were leased noncompetitively. Cumulatively, over 5.5 million acres of Federal lands have been leased for geothermal development since the program began in 1974.

During FY 1983 there were 37 geothermal leases capable of production in four States--California, Nevada, New Mexico, and Utah. Only 9 of these leases were in actual production during the year--8 in California and 1 in New Mexico. There were 62 steam wells and 27 hot water wells on the producible leases.

Progress during the year also was made in the area of regulatory reform. Through successive final rule-makings made effective in March, May, and July 1983, the geothermal leasing program was simplified substantially for the public, and 90 percent of the reporting and recordkeeping requirements affecting program participants were eliminated. Regulations pertaining to geothermal operations were transferred from Title 30 CFR parts 270 and 271 to Title 43 parts 3260 and 3280, respectively.

c) Issues

A major issue affecting the geothermal leasing program involves the per State leased acreage limit of 20,480 acres. Legislation to increase the limit has been proposed in each of the last four sessions of Congress, but none of the bills has passed.

Geothermal operators express concern that applications for permits to drill continue to be processed in a timely manner, allowing access to lands already under lease so they can begin their exploratory or developmental work. Such timely access is critical to industry in planning their work. In the same vein, operators are expressing concern that associated applications such as for unitization, communitization, exploration, and installation of utilization equipment be processed promptly.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors, especially California, Nevada, and Oregon

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	2,305	2,760	3,197

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	2,100	2,562	3,197
Work Years	61	63	75

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Competitive sales	16	7	5
Competitive leases issued....	108	35	20
Noncompetitive leases issued.....	465	231	225
Power plant licenses.....	2	1	1
Post-lease actions.....	157	180	180
Nonelectrical use licenses	0	0	1

(Work units will be added for operations)

B.5. COAL MANAGEMENT

a) Program Description

In the western United States, as much as 60 percent of the coal resource is owned by the Federal Government, principally in the States of Colorado, Montana, New Mexico, North Dakota, Utah and Wyoming. By the end of FY 1983, a total of 655 leases had been issued, covering 950,174 acres of land containing an estimated 18 billion tons of recoverable reserves of Federal coal.

The current Federal coal management program uses comprehensive land use planning to identify areas that are environmentally acceptable for leasing, eliminating from consideration those areas that contain unique site-specific resource values that are clearly more significant than the coal resource. In addition, qualified surface owners are consulted during land use planning to determine whether a significant number have a preference against surface mining. If so, the lands involved may be dropped from further consideration for coal leasing.

Activity planning follows completion of the land use plans and involves ranking and selecting a sufficient number of potential coal leasing tracts within the coal region to meet the regional leasing levels. A Federal/State Regional Coal Team is established in each region and is responsible for ranking and selecting tracts for recommendation to the Secretary for leasing. The Secretary makes his decision after a regional environmental impact statement is completed and each affected State is consulted.

Strong input from industry, other Federal agencies, state and local governments and the public is an essential and integral element of the program. The program also includes "leasing by application" within Federal coal regions under emergency conditions (e.g., where Federal coal would otherwise be bypassed) and outside Federal coal regions where regional competitive leasing is impractical. Other aspects of the program include processing of pending preference right lease applications (PRLA's), processing coal exploration license applications, and action on coal exchanges.

All coal tracts are evaluated prior to lease sale in order to ensure that the Government receives fair market value.

Because of the merger of onshore minerals functions, the BLM now has responsibility for supervising exploration and mining operations on Federal and Indian coal leases. Of the 655 leases in effect, mining operations are being conducted on 186 Federal leases and 7 Indian leases.

The operations responsibility is a sequential process from prelease exploration, to mining activity on a leased tract, to mine abandonments. This responsibility includes approval of exploration and resource recovery plans and the enforcement of Federal coal regulations and lease terms. In conjunction with individual tribes and the Bureau of Indian Affairs, these functions also are carried out on Indian lands.

b) Progress Report

Through the "leasing by application" component of the program, six lease sales were held and six new leases containing approximately 996 million tons of recoverable reserves were issued during the fiscal year. Three PRLA's covering an estimated 39.26 million tons of recoverable reserves also were issued.

Competitive lease sales were held during the fiscal year in two Federal coal regions: the Fort Union and Powder River Regions.

- In October 1982, leases were sold on two tracts in the Powder River Region containing 471 mil-

lion tons of recoverable reserves. High bids for the tracts totaled \$23,689,632.

- Leases on four tracts containing 102 million tons of recoverable reserves in the Fort Union Region were sold in September 1983. High bids totaled \$845,910.

Activity planning for the first round of sales in FY 1984 in the San Juan River Region and the second round of sales in the Green River-Hams Fork, Uinta-Southwestern Utah, and Powder River Regions and the Alabama Subregion continued in FY 1983.

Also during FY 1983, 133 leases were in production, of which 7 are on Indian lands. Additionally, 129 leases were reported as having "activity" which includes preproduction exploration, reclamation or environmental studies, or maintenance in a production-ready status.

c) Issues

In August 1983, the Secretary appointed David F. Linowes to head the Commission on Fair Market Value Policy for Federal Coal Leasing, which was authorized by legislation enacted by Congress.

To complete its mission, the commission will evaluate efforts to improve the Department's fair market value policies and procedures for the coal leasing program and will recommend improvements in the statutes, policies, and procedures governing receipt of fair market value.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Solid Leasable Minerals

Field Administrators: State Directors, especially Colorado, Montana, New Mexico, Utah, Wyoming, and Eastern States

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	17,947	20,259	18,598

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	16,982	18,783	18,598
Work Years	296	344	360

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Environmental Statements	3	2	5
Environmental Assess- ments	159	34	67
Trespass	19	3	3
Use Authorizations (In- cludes coal leases and exploration licenses)	177	157	213

B.6. OIL SHALE MANAGEMENT

a) Program Description

Efforts to develop oil shale have fluctuated greatly over the past 65 years. World War I prompted a flurry of claim staking under provisions of the Mining Law. During World War II, interest in oil shale resulted in the enactment of the Synthetic Liquid Fuels Act of 1944. Under the Act, the Bureau of Mines began developing extraction technology at Rifle, Colorado, and Laramie, Wyoming. Since then, private industry has taken over refinement and adaptation of technologies.

In 1974, BLM issued four oil shale leases - two in Utah and two in Colorado. The leases were issued as part of the Department's Oil Shale Prototype Leasing Program. One objective of this program was to issue a limited number of leases to stimulate development of commercial oil shale technology by private industry. Another objective was to develop the environmental safeguards, management expertise, and government supervision necessary in a future oil shale industry.

The 25,000-square mile Green River formation in northwestern Colorado, northeastern Utah, and southwestern Wyoming contains oil shale with a total estimated potential of almost two trillion barrels of oil. Of the total area, 17,000 square miles are believed to have deposits greater than 10 feet thick with an average yield of 25 or more gallons per ton, for an estimated 731 billion barrels of commercially developable shale oil. Approximately 83 percent of the formation is in Colorado, 9 percent in Utah, and 8 percent in Wyoming.

Roughly 80 percent of this oil shale is on Federal land. The other 20 percent is in State or Indian ownership or was transferred under the 1872 Mining Law, which governed disposal of minerals on public land before 1920 when the Mineral Leasing Act provided new authority for leasing Federal oil shale lands. In the absence of commercial prospects, however, these lands were withdrawn from mineral leasing and other forms of disposal in 1930. Except for the prototype sale in 1974, there has been no leasing. In 1968, oil shale lands were withdrawn from location of metalliferous minerals (something not done by the 1930 withdrawal) under the Mining Law to preclude legal entanglements.

b) Progress Report

During early FY 1983, BLM proposed regulations to manage Federal oil shale resources. This proposal contained procedures to explore Federal resources; develop land use plans for Federal oil shale; conduct competitive lease sales; obtain bonus, royalty, and rental payments; and manage leases after issuance.

The BLM held public information meetings and hearings to solicit public comments on the proposed regulations. Among other things, the hearing and written comments supported a more highly tiered approach to planning and environmental impact statement preparation than had been proposed.

In response to public concern, BLM is preparing revised proposed Federal oil shale management regulations that contain more analytical tiering, as well as more opportunities for local input to oil shale management and a different royalty payment mechanism. The issuance of these proposed and final regulations are expected in FY 1984.

All four tracts that were leased under the original prototype program are in various stages of development. The two Utah tracts have been unitized and are being managed as one tract. Ground was broken on U-a and U-b in the summer of 1983, and development is proceeding at an expected pace. In Colorado, C-a is in a temporary suspension of operation as of the spring of 1983. C-b is scheduled to receive a maximum loan guarantee and price supports of approximately \$2.19 billion from the Synthetic Fuels Corporation in 1984.

Several industry applications for Federal lands to support ancillary facilities for private oil shale projects are pending. BLM has prepared several environmental impact statements (EIS's) to facilitate this development and accommodate all such requests to allow industry to meet its development schedules. For example, the Chevron oil shale op-

erations in Colorado are scheduled for full production by 1991. The final EIS has been completed for the Chevron project. The Utah State Office published a final basinwide EIS covering all oil shale projects requiring their approval in February 1983.

c) Issues

Development of the fundamental technology of oil shale is well advanced, but still lacks testing at commercial scale. Nevertheless, a wide array of economic, environmental, and some technological uncertainties remain. Congress enacted legislation in FY 1983 concerning off-site waste disposal for one specific prototype lease in Colorado, as well as two smaller private parcels. Experience to date suggests that the current maximum acreage of oil shale leases may be insufficient for commercialization in areas where shale deposits are relatively thin.

d) Budget and Performance Analysis (Oil Shale and Tar Sand Programs)

1) Administrative Responsibility

Program Administrator: Assistant Director, Solid Leasable Minerals

Field Administrators: State Directors, Colorado, Utah, and Wyoming

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	3,675	4,118	2,148

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	3,490	4,070	2,148
Work Years	63	75	50

4) Performance

N/A

B.7. TAR SAND MANAGEMENT

a) Program Description

Nationwide, the United States has an estimated 30 billion barrels of tar sand oil, of which 2 billion bar-

rels are deemed recoverable with today's technology. Approximately 100 to 200 million barrels can be recovered by surface mining. The rest will probably require some form of *in situ* techniques for recovery. Over 90 percent of the United States' tar sand deposits are in Utah. The 11 major tar sand areas are principally on Federal lands, some of which are intermingled with State lands.

The Combined Hydrocarbon Leasing Act of 1981 was signed into law on November 16, 1981. The primary effect of this legislation was to redefine the term oil to include all nongaseous hydrocarbons except coal, oil shale, and gilsonite. With this change, there is no longer a need in new oil and gas leasing to distinguish between tar sand and oil, which had created sufficient administrative difficulty in the past so as to deter Federal tar sand leasing completely. The Act created a competitive combined hydrocarbon leasing program in the 11 major tar sand areas (referred to as Special Tar Sand Areas-STSA's). It also provided to existing oil and gas lessees and holders of valid claims the right to the hydrocarbons in the 11 STSA's and to convert these leases without competitive bidding to combined hydrocarbon leases.

b) Progress Report

Final regulations governing the conversion of existing oil and gas leases and valid claims to combined hydrocarbon leases were issued in 1982. Regulations governing the competitive leasing program were issued, and final rules were implemented on March 21, 1983. Draft environmental impact statements (Regional, Tar Sand Triangle, and Sunnyside) have been developed, and the analyses of the impacts are due for public comment by the spring of 1984. The EIS's cover amendments to land use plans on the planning areas which encompass the STSA's to allow for potential tar sand development in those areas. It is anticipated that two other EIS's will be initiated in FY 1984.

c) Issues

The Combined Hydrocarbon Leasing Act provided mechanisms for leasing tar sand through the redefinition of oil and through the creation of combined hydrocarbon leases within the Special Tar Sand Areas. Holders of oil and gas leases outside the STSA's who find tar sand on their leases have no mechanism for developing the resource. The only option available for these leaseholders is to relinquish their lease and to try to re-lease the property through the various oil and gas leasing mechanisms.

d) Budget and Performance Analysis

The Tar Sand program was funded as part of the Oil Shale program in FY 1983.

B.8. NONENERGY LEASABLE MINERALS

a) Program Description

As defined by law (Mineral Leasing Act of 1920, as amended and supplemented; Mineral Leasing Act of 1947 for Acquired Lands; and the Reorganization Plan No. 3), the nonenergy leasable minerals are phosphate, potassium, sodium, sulphur, asphalt, gilsonite, and associated minerals; plus chlorides, sulphates, carbonates, borates, silicates, and nitrates on the public domain lands, and all minerals on most acquired lands (locatables or hardrock minerals that are generally in National Forests).

The Mineral Leasing Act provides for both competitive and noncompetitive leasing. However, approximately 95 percent of this program operates through the noncompetitive system. Prospecting permits are issued prior to noncompetitive leases, and discovery of a valuable deposit entitles the permittee to a lease (termed a preference right lease) provided the permittee can meet the terms and conditions and special stipulations that may be attached to the lease. Leases have a 20-year term and can be renewed or readjusted for additional terms. Different rental and royalty provisions apply varying with the mineral involved, but unlike coal or oil and gas, there are no diligent development requirements under these leases.

Solid leasable mineral exploration and mining operations (excluding coal) are being conducted on 359 Federal leases and 67 Indian leases. There are six major sodium (soda ash) mines, seven major potassium (potash) mines, five major phosphate mines, and seven major lead-zinc mines on acquired lands. On Indian lands, one large copper mine, one uranium operation and a large number of sand and gravel operations are in production.

With the merger of onshore minerals functions, the BLM is now responsible for the processing of permit and lease applications, approval of exploration and mining plans, preparation of environmental analyses and EIS's, production verification, and approval of final abandonment plans. In cooperation with the individual tribes and the Bureau of Indian Affairs, the BLM also carries out its supervisory operations functions on Indian lands.

b) Progress Report

Approximately 55 percent of the casework backlog has been eliminated in FY 1983 by the diligent efforts of minerals adjudication staffs throughout the BLM.

Proposed final amendments to the 43 CFR 3500 regulations have been developed and will become final rulemaking in early FY 1984. Additionally, the merger of key components of the Minerals Management Service with the BLM also incorporated their operating regulations 30 CFR 231 into 43 CFR 3570.

A proposed combined mineral lease form was published in the *Federal Register*, and public review and comment was solicited. A final lease form is expected to become effective in early FY 1984.

c) Issues

The amendments to the regulations would streamline the general noncompetitive leasing procedures and enhance public availability for exploration and development. The combined mineral lease form is expected to eliminate the need to stock separate forms for every mineral defined under the Mineral Leasing Act.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Solid Leasable Minerals

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	1,588	3,324	3,838

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	1,534	3,069	3,838
Work years	31	71	85

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Lease applications processed	144	144	148
Prospecting permits processed	211	211	406
Environmental assessments completed	326	346	400
Inspections/Compliance checks conducted	1,322	1,472	1,472
Exploration/Mining plans processed	210	800	1,000
Mineral reports completed	800	800	1,000

B.9. MINING LAW ADMINISTRATION AND MINERAL MATERIALS

a) Program Description

Mining Law Administration, operating under the authority of the Mining Law of 1872, as amended, encourages the search for and discovery of locatable mineral deposits on public lands by means of a mining claim location and patent system. The discoverer of a valuable mineral deposit has the right to acquire fee title to the acreage of a lode or placer claim. This law continues to apply to all minerals not subject to leasing or sale on all public domain lands.

Until 1976, when the Federal Land Policy and Management Act (FLPMA) was passed, claimants generally filed their location notices and other claim records only with county clerks. As a result, the Federal Government had no official record of the number, location, or identity of claims or claimants. FLPMA, however, requires a claimant to file with BLM a copy of the locations notice and, thereafter, to file annually with BLM evidence of interest to hold the claim.

FLPMA also directs that in managing the public lands, the Secretary shall take any action necessary to prevent unnecessary or undue degradation of the lands. BLM responded to this directive by preparing regulations that govern mining activity on public lands. Regulations that allow mining activities and still prevent impairment of the suitability of lands under wilderness review for inclusion in the wilderness system (43 CFR 3802) were issued in March 1980. Final regulations governing mining activity on public lands other than wilderness study areas (43 CFR 3809) became effective in January 1981.

The primary goal in the salable minerals program is to dispose of mineral materials, such as sand, gravel, and cinders by sale or free use. Associated

with this goal are responsibilities for the inventory and planning necessary for disposals and the prevention of unauthorized use of mineral materials on the public lands.

Mineral materials from the public lands play an important role in supporting energy and mineral development, the construction and maintenance of transportation systems, and the expansion of communities and industries in the Western States. In many western communities, the public lands provide the only source of mineral materials.

The basic authorities for implementation of the mineral materials program are the 1947 Materials Act and the 1955 Surface Resources Act. The Materials Act makes minerals such as sand, gravel, and building stone available for commercial use. They are sold either competitively or noncompetitively. Some sales are made to individuals for exclusive rights to a site. Other sales are made for material from common use areas or community pits. Governmental agencies and nonprofit organizations may be granted such materials at no charge under a free-use permit.

The 1955 Act amended the 1947 Act by stating that certain types of mineral materials ("common varieties") were no longer locatable under the mining laws, but salable under the 1947 Act. It provided for the continued location of mineral materials having distinct and special value.

b) Progress Report

Efforts to reduce the number of pending mineral patent applications resulted in the issuance of 155 mineral patents covering 15,141 acres in FY 1983. This reduced the number of pending mineral patent applications from the FY 1982 level of 412 to 335 at the close of FY 1983. A Notice of Intent to revise the regulations (43 CFR 3700 and 3800) concerning administration of the Mining Law of 1872, as amended, was published in the *Federal Register* in December 1982. Public comments focusing on the definition of discovery of a valuable mineral deposit, assessment work provisions, and mineral patent procedures, among other topics, are being evaluated. Proposed regulations are expected to be published in the *Federal Register* during the first half of FY 1984.

A proposal to amend the mining claim recordation regulations (43 CFR 3833) was published in May 1982, and the final regulations were published in December 1982. The modified regulations clarified ambiguities in the existing regulations, eliminated unnecessary information requirements, simplified the filing process, and adopted a "postmark rule" to permit late receipt of timely mailed filings.

A proposal to modify the surface management regulations (43 CFR 3809) was published in March 1982 and the revised regulations became final in March 1983. The effect of the modifications was to clarify the existing regulations and to eliminate the mandatory filing of a plan for operations on lands in the California Desert Conservation Area that are classified by the Desert Plan as moderate and intensive use areas.

Revised regulations (43 CFR 3600) governing the administration of the BLM's mineral material program were published on June 10, 1983. The revision of these regulations changed the limitations on the disposal of mineral materials from public lands, clarified ambiguities in the previous regulations, and created simplified procedures for the disposal process.

c) Issues

On June 6, 1983, the Supreme Court rendered a decision in *Watt v. Western Nuclear, Inc.* declaring that gravel is a mineral reserved to the Federal Government on lands for which the surface was patented under the 1916 Stock-Raising Homestead Act (SRHA).

The Supreme Court's declaration means that gravel and, by implication other mineral materials on approximately 33 million acres of SRHA lands, will remain in Federal Government possession to be sold to private entities or provided free of charge to government agencies and qualified nonprofit organizations.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director, Energy and Mineral Resources

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	8,183	8,631	10,277

FUNDING

	1982 Enacted	1983 Enacted	1984 Proposed
MINING LAW ADMINIS- TRATION			
Appropriation (\$000s)	6,365	6,559	7,302

FUNDING—Continued

	1982 Enacted	1983 Enacted	1984 Proposed
MINERAL MATERIAL SALES			
Appropriation (\$000s)	1,818	2,072	2,353
URANIUM OPERATIONS			
Appropriation (\$000s)	--	--	622

*Includes \$200,000 funding for the Paleontology and Geology program transferred from the Soil, Air, and Water subactivity.

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	7,614	8,262	10,277
Work Years	250	254	283

PROGRAM OBLIGATIONS

	1982 Enacted	1983 Enacted	1984 Proposed
MINING LAW ADMINIS- TRATION			
Dollars (\$000s)	5,931	6,353	7,302
Work Years	200	201	210
MINERAL MATERIAL SALES			
Dollars (\$000s)	1,683	1,909	2,353
Work Years	50	53	66
URANIUM OPERATIONS			
Dollars (\$000s)	--	--	622
Work Years	--	--	7

4) Performance

MINING LAW ADMINISTRATION

Work Units	1982 Actual	1983 Actual	1984 Planned
Plans of Operation re- viewed.....	559	429	450
Notices reviewed.....	1,708	1,465	2,200
Mineral patent applications processed.....	120	155	155
Mining claims recorded.....	175,436	137,116	150,000

MINERALS MATERIALS

Work Units	1982 Actual	1983 Actual	1984 Planned
Trespass cases processed ...	27	34	34
Compliance checks con- ducted.....	1,687	1,737	1,737
Environmental assess- ments completed.....	368	785	785
Sales contracts issued	871	898	898
Free use permits issued	461	538	538

MINERALS MATERIALS—Continued

Work Units	1982 Actual	1983 Actual	1984 Planned
Paleontology permits issued.....	--	--	100

MINERALS MATERIALS—Continued

Work Units	1982 Actual	1983 Actual	1984 Planned
GEM assessments (000's acres)	--	--	450

Land Programs



C. LAND PROGRAMS

C.1. LANDS

a) Program Description

FLPMA's most sweeping effect was to consolidate and clarify the objectives and procedures governing the management of the remaining unreserved public lands under BLM's jurisdiction. Although FLPMA establishes retention as the general policy, it also provides for disposal of land at fair market value as long as the disposal is generally consistent with BLM's land use plan and is clearly in the national interest. FLPMA clarifies BLM's responsibilities with respect to land sales, exchanges of land, land acquisition, and granting of rights-of-way for a variety of public purposes.

During the past year, BLM's lands program focused on:

- 1) producing regulations to implement the sale, recordable disclaimer, correction of conveyance documents, and exchange provisions of FLPMA;
- 2) modifying existing regulations to eliminate unnecessary requirements and streamline procedures;
- 3) responding to State and local government requests for acquisition or use of public land for community expansion and recreation or public purpose activities;
- 4) "decentralizing" to the maximum extent to allow delegation of decisions to the field level; and
- 5) developing a program of land tenure transactions to foster improved and more efficient management of the public lands.

b) Progress Report

In 1981 the Secretary invited the Governors of the Western States to identify public lands needed for community expansion or other activities. BLM screened the Governors' requests and forwarded those requests for lands not administered by BLM to the appropriate agency. Action plans were developed and implemented for those requests that remained with BLM. Most of the applications received from the Governors were filed under the Recreation and Public Purposes Act. In FY 1983, BLM processed over 300 Recreation and Public Purposes (R&PP) applications involving more than 80,000 acres of land. Applications continue to be filed under the R&PP Act. There currently are 649 applications involving 255,000 acres that have not been processed to completion.

Land exchanges provide opportunities to simplify ownership patterns, meeting both public and private needs. Amendments to the FLPMA regulations, designed to simplify and clarify the exchange process, became final on May 20, 1983. The most significant change provided for equal value rather than fair market value appraisals, as were required in previous regulations. This amendment brought the regulations into greater conformity with Section 206 of FLPMA. It also allows greater flexibility in exchanges, especially in oil shale exchanges where there is insufficient information to permit a fair market value appraisal. Other amendments involved the relationship between planning and exchanges, elimination of certain publication requirements, and deletion of the requirement making exchanges subject to the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970.

During FY 1983, review and evaluation of all lands regulations were continued as part of the Administration's regulatory reform program. A number of changes eliminated unnecessary requirements and streamlined the regulations. Comments on proposed regulations for recordable disclaimers of interest and correction of conveyance documents were analyzed. Final regulations are being developed. Further efforts were made toward regulatory reform for sales and recreation and public purposes disposals.

As Western States were admitted to the Union, they were granted Federal land for a variety of purposes. At the beginning of 1982, eight States (Arizona, California, Colorado, Idaho, Montana, South Dakota, Utah and Wyoming) had a total remaining entitlement of 528,000 acres. During 1982, BLM transferred 80,000 acres, satisfying more than 20 percent of the remaining entitlement. Of the remaining 448,000 acres, 189,180 acres (or 42 percent) were transferred to the eight States during FY 1983, the largest number of acres transferred since 1969. South Dakota's remaining entitlement was satisfied with the transfer of 2,130 acres.

Activity under the Desert Land Act of 1877 continues to be heavy in Nevada and Idaho. There is less activity in other States due to various factors such as the availability of water and suitable lands. As of September 30, 1983, there were approximately 3,000 desert land entry applications on file.

During FY 1983, 10,257 acres of public lands were sold for a total of \$8,172,000. Most of the lands sold consisted of isolated and hard to manage parcels. Sale of these lands also accomplished a number of important objectives, such as providing lands for community expansion.

Reform of the present sale regulations has been ongoing during FY 1983. Final rulemaking governing the sale of public lands should be accomplished during FY 1984. The new regulations are intended to streamline and simplify present processing requirements involving the sale of public lands.

In line with this Administration's objective to improve public service functions within the BLM, the decentralization of decisionmaking authority to the District and Area Offices for almost all lands casework is nearing completion. In the past, processing responsibility on routine lands casework was shared between the State, District, and Area Offices. The shift of decisionmaking authority to the local level has enhanced the public's access and participation in the decisionmaking process, and provides "one-stop shopping" to the public at the District and Area Offices for most land transactions. Other benefits of decentralization include the elimination and streamlining of certain administrative procedures that were not time and cost effective.

c) Issues

Although much has been accomplished, more opportunities exist to streamline procedures for responding to requests for use and acquisition of public land. Key elements of this effort are the ongoing review and revision of outdated regulations and procedures, and the further delegation of decisionmaking authority.

d) Budget and Performance (Lands and Realty)

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	27,016	32,553	25,208

FUNDING

	1982 Enacted	1983 Enacted	1984 Proposed
ENERGY RELATED			
REALTY			
Appropriation (\$000s)	5,712	7,316	6,678
NONENERGY RELATED			
REALTY			
Appropriation (\$000s)	21,304	25,237	18,530

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	26,735	32,840	25,208
Work Years	884	982	706

PROGRAM OBLIGATIONS

	1982 Enacted	1983 Enacted	1984 Proposed
ENERGY RELATED			
REALTY			
Dollars (\$000s)	5,633	6,513	6,678
Work Years	206	212	190
NONENERGY RELATED			
REALTY			
Dollars (\$000s)	21,102	26,327	18,530
Work Years	678	770	516

4) Performance

ENERGY RELATED REALTY

Work Units	1982 Actual	1983 Actual	1984 Planned
Environmental Analyses	1,621	947	1,030
Environmental Statements	13	20	20
Field Examinations	5,693	2,986	2,498
Use Authorizations	3,567	2,119	1,729
Compliances	4,448	3,792	2,739

NONENERGY RELATED REALTY

Work Units	1982 Actual	1983 Actual	1984 Planned
Field Examinations	4,384	6,703	5,596
Title Transfers	4,897	8,216	4,846
Use Authorizations	4,552	3,432	2,782
Compliances	2,708	2,488	1,549
Inventory (Acres)	4,743,223	3,191,559	392,805

C.2. RIGHTS-OF-WAY

a) Program Description

The BLM grants rights-of-way for the use of public lands for a variety of private and public purposes, including such uses as roads, trails, pipelines, powerlines, canals, communications sites, and reservoirs.

The primary authorities for granting rights-of-way are FLPMA and the Mineral Leasing Act (MLA). The MLA authorizes rights-of-way for oil, natural

gas, and synthetic fuel facilities while FLPMA, which repealed numerous early right-of-way authorities, is the authority for granting most other rights-of-way except for Interstate and Defense Highways and the Federal aid primary and secondary systems, which are authorized under the provisions of Title 23 of the United States Code.

During the last several years, rights-of-way necessary for energy related exploration and development have had priority in the BLM's program. With the leveling off during FY 1983 of energy activities, BLM has been able to give rights-of-way for nonenergy purposes equal attention.

b) Progress Report

The BLM's emphasis on right-of-way activities during FY 1983 was in internal guidance and training to further implement decentralization of granting authority and regulatory reform actions that were initiated during previous fiscal years. An Interagency Agreement was signed with the Federal Highway Administration to provide a more effective and responsive procedure for making public lands available for highway purposes.

The role of casual use, or use of the public lands for nondisturbing and nondamaging transportation and other purposes, without a documented right-of-way grant was defined to make it broader in applicability and more responsive to resource management needs.

The BLM and Forest Service continued work through the two agencies' respective planning processes in FY 1983 under an Interagency Agreement to identify transportation and utility corridors. When the corridor work is completed, there will be a matrix of preferred right-of-way routes on public and National Forest lands. This matrix will help BLM, Forest Service, right-of-way applicants, and the public better plan for these important uses.

For many reasons, but mostly due to regulatory reform and a better understanding of application processing requirements by BLM personnel and by the applicants, problems directly associated with use of Federal lands for major right-of-way projects decreased dramatically during FY 1983.

In FY 1983 BLM was involved in various stages of the right-of-way granting process for the following array of major projects:

- 6 pipelines
- 2 power plants
- 4 transmission lines
- 3 synfuels projects
- 2 wind generation developments

The BLM experiences continuing activity relative to radar sites, oil and gas field development, water related projects, fertilizer plants, slurry lines, etc.

c) Issues

The protection of cultural resources on private lands crossed by projects requiring a public lands right-of-way continued to be an issue in FY 1983, although a less difficult issue than it had been in the past. As BLM right-of-way applicants/holders, private landowners, State Historic Preservation Officers, and other interested persons gain a better understanding of their respective responsibilities and authorities, the questions and disputes with regard to actions BLM should take or require on private lands concerning cultural resources are decreasing.

In its decision on an appeal of several lawsuits, the United States Court of Appeals for the Tenth Circuit ruled that the FLPMA Cost Recovery regulations were invalid because of problems related to the "reasonableness" factors specified by FLPMA. In response to this decision, BLM is promulgating separate cost recovery regulations for MLA rights-of-way and is developing guidelines that meet the requirements of the court and FLPMA.

Fair market value rental for use of rights-of-way on public lands continues to be an issue on both FLPMA and MLA grants. There are two distinct components of this issue: (1) whether public or quasi-public bodies, which provide a utility or other service similar to utilities or services provided by investor-owned organizations, should pay rent for the use of public lands; and (2) the amount of the annual rental as determined by BLM through use of various appraisal techniques.

d) Budget and Performance Analysis

The Rights-of-Way program is funded as part of the Lands Realty Management activity.

C.3. ACQUISITIONS

a) Program Description

The BLM's acquisition program involves the acquisition of lands or interests in lands (easements) by gift, purchase, or exchange in order to improve the management of public lands. It is mainly directed toward obtaining access over intervening private lands to permit uses such as mineral development, forest and range management, fire protection, and recreation on the public lands. A few small parcels

of land are also acquired for special needs such as seed orchards, nurseries, and office complexes.

The FLPMA, in addition to being BLM's general acquisition authority, authorizes the use of money from the Land and Water Conservation Fund (L&WCF) to acquire lands valuable for outdoor recreation. This funding is separated from appropriations for access acquisitions. The BLM also has authority to acquire lands or easements for intensive management of specific legislated areas such as the King Range, the Pacific Crest Trail, and Wild and Scenic Rivers.

It is BLM's policy to use its acquisition authority sparingly. It is not BLM's policy to add significant new acreage to the public domain, but rather to resolve irregularities in ownership or to acquire legal rights that contribute in some significant manner to management objectives.

In 1971, the Alaska Native Claims Settlement Act (ANCSA) authorized reservation of public easements on lands to be conveyed to Alaska Native corporations. As a result, several thousand easements across Native lands providing access to public lands and resources were reserved to the United States Government throughout Alaska. These easements are periodically reviewed, as required by ANCSA, to determine if the location is as specified in the conveyance and if the easement is being used. If the easement is not being used, rights of access may be terminated.

b) Progress Report

In response to the Public Rangeland Improvement Act of 1978, the BLM continued to acquire a larger number of easements for rangeland improvement than in previous years. These easements enabled the construction of fences, wells, and other water facilities for the betterment of public rangeland conditions.

The BLM expended \$1.6 million for access road easements to support resource programs and provide public access to public lands. A total of \$2.7 million were spent from the L&WCF to acquire fee title or scenic easements on 29 tracts totaling 12,059 acres. Major acquisitions in 1983 included portions of the Rogue National Wild and Scenic River, the King Range National Conservation Area, Yaquina Head Outstanding Natural Area, and the Pacific Crest Trail.

c) Issues

The primary acquisition issue centers on the difficulty of acquiring sufficient numbers of access easements over non-Federal lands to meet man-

agement needs. Without this access, BLM's ability to manage, protect, and develop public lands and resources is restricted, and these lands are not available for use by the general public.

While the checkerboard pattern of the Federal and non-Federal land ownership is the major factor, other developments that contribute to the lack of adequate access are:

- Roads previously open to use by BLM and the public are now being closed as private lands are sold or conflicts develop.
- Local governments are vacating or abandoning public roads due to budgetary constraints and other reasons.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: District Managers

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Access			
Appropriation (\$000s)	1,733	1,525	1,200
Land Acquisition			
Appropriation (\$000s)	3,712	311	1,391

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Access			
Dollars (\$000s)	1,401	1,646	1,200
Work Years	46	45	31
Land Acquisition			
Dollars (\$000s)	793	2,725	1,735
Work Years	9	7	7

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Title Transfers.....	169	202	142

C.4. WITHDRAWAL REVIEW

a) Program Description

The Withdrawal Review Program, mandated by FLPMA, authorizes the Secretary to review certain public land withdrawals in 11 Western States by 1991. The purpose of the review is to determine whether, and for how long, the existing withdrawals should be continued. BLM completed an inventory of those withdrawn lands in October 1979.

Of some 347 million acres of public lands in the 11 Western States, approximately 57 million acres were segregated from some form of mineral exploration and development and were subject to withdrawal review under FLPMA. Specifically excluded from review were lands set aside for the National Park System, Wildlife Refuge System, Wild and Scenic River System, National Trails System, Indian reservations and other Indian holdings, Wilderness Areas, and the National Forest System. Review of withdrawn lands in Alaska and the Eastern States also is not required under FLPMA.

In addition to acreage closed to mineral exploration and development, some 124 million acres of public land were closed by BLM classification orders to some or all of the nonmineral public land laws. BLM is reviewing all of these classifications and terminating them when appropriate.

b) Progress Report

During FY 1983, other Federal landholding agencies initiated review of their withdrawn lands. BLM completed field review of approximately 20.1 million acres withdrawn by other agencies from all or some of the mineral and nonmineral public land laws. The Secretary approved 94 public land orders opening 7.3 million acres to the public land laws, of which 0.3 million acres were opened to mining and 4.2 million acres to mineral leasing. As part of the review process, BLM also terminated approximately 40.7 million acres of restrictive land classifications, further enhancing multiple use of public lands.

c) Issues

The general public has not voiced an opinion, pro or con, on the review program itself. Certain groups, on occasion, have expressed concern over proposals to open areas receiving heavy public use and/or containing special values to multiple use management including mining and mineral leasing.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	4,088	4,079	3,529

3) Program Obligations

	1982 Actual	1983 Actual	1984 Proposed
Dollars (\$000s)	3,798	3,291	3,529
Work Years	112	100	105

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Processing withdrawal applications/revocations.....	176	105	181
Withdrawal review	1,023	369	362
Classification review.....	535	259	72

C.5 ALASKA LANDS

a) Program Description

The Alaska lands program was established to implement the Alaska Statehood Act, ratified on January 3, 1959, and the Alaska Native Claims Settlement Act of December 18, 1971, as amended (ANCSA). The Alaska Statehood Act granted to the State approximately 104.5 million acres. ANCSA granted Alaska Native corporations 44 million acres of land. Conveyance of lands selected under these authorities is BLM Alaska's top priority. However, such conveyances are complicated by a number of factors.

There are approximately 5,500 pending Native allotment cases (10,300 parcels) in Alaska. These require various degrees of field examination, conflict resolution, adjudication, survey, and certification. About 3,600 cases (6,000 parcels) were approved legislatively under Section 905 of the Alaska National Interest Lands Conservation of 1980 (Alaska

Lands Act). These require boundary staking, survey, and issuance of Certificates of Allotment.

In addition to the Native allotments, there are approximately 100 pending Alaska settlement claims and other applications for title transfer of small parcels. Adjudication of these settlement claims and other applications still must be completed. About 190 settlement claims were legislatively approved pursuant to Section 1328 of the Alaska Lands Act. All parcels will require boundary staking, survey, and preparation and approval of the survey plat before the patent can be prepared and issued.

Thousands of applications for Native allotments and hundreds of applications for settlement claims and other small tracts are within lands selected by the Native corporations and the State. These applications must be processed, surveyed, and conveyed before the Native corporations or the State can receive patent to the affected adjacent lands.

Approximately 65,000 mining claim location notices are on file with BLM in Alaska. About 12,000 new claims are filed each year. Tens of thousands of mining claims have been filed on lands selected by the Native corporations and the State. Before these lands can be conveyed to the Native Corporations or the State, determinations must be made as to whether claims are properly filed under FLPMA and if annual affidavits of assessment or notices of intent to hold the claims are filed in a timely manner. Also, all applications for mineral patent must be either processed or declared null and void.

More than 275 Federal withdrawals must be reviewed and possibly processed for conveyance to Alaska Native corporations and the State of Alaska. All Federal withdrawals affecting Native corporation selections must be reviewed to determine lands to be transferred or retained by the Federal agency. Determinations also must be made on conveying State-selected lands.

Surveys are needed on about 12.5 million acres of Native corporation exterior boundaries, 58 million acres of State exterior boundaries, 13,000 Native allotment parcels, 4,500 other small parcels and exclusions, and 200 small villages and numerous reconveyance parcels. Native and State entitlements are based upon surveyed acreages. Therefore, full entitlements cannot be determined or conveyed until all related surveys (including inholdings such as Native allotments) are completed.

Another high priority is the review of nearly 40 million acres of BLM lands in Alaska for possible homesteading, homesites, trade and manufacturing sites and headquarters sites (collectively referred to as the Alaska Settlement laws), mining and mineral leasing. The review does not include lands in the National Petroleum Reserve in Alaska (NPR-A), the

Central Arctic area, or lands selected by the State or Alaska Native corporations. Because FLPMA repealed the Alaska Settlement laws effective October 22, 1986, a 5-year program to review these lands was initiated in June 1981. The land use planning process is used to identify lands that can be opened and the types of use that can be made of them. Views of the State, Alaska Native corporations, and the public help in the identification of specific lands to be opened.

b) Progress Report

As provided by the Alaska National Interest Lands Conservation Act of 1980 (Alaska Lands Act), the State can select lands until January 1, 1994. During FY 1983, BLM conveyed more than 10.0 million acres to the State. This means that as of September 30, 1983, the State has received title to 75.3 million acres, about 72 percent of its entitlement. This includes patent to 22.0 million acres and tentative approval for patent to an additional 53.2 million acres.

During FY 1983, BLM conveyed 7 million acres to Alaska Native corporations. This means that as of September 30, 1983, interim conveyances and patents have been issued for 30.2 million acres of land, or 72.2 percent of their entitlement. This includes patent to 3.4 million acres and interim conveyance of 26.9 million acres.

In FY 1983, BLM continued the opening of lands in Alaska to Alaska Settlement Claims and to mineral leasing. Lands were also opened to non-metalliferous mining.

In September 1982, 10,250 acres were opened to settlement near Slana, Alaska. In November 1983, about 2.6 million acres were opened to FLPMA sales and leases; about 5.7 million acres were opened to mining; and about 4.4 million acres were opened to mineral leasing, all in the Seward Peninsula area of Alaska. The 1982 Public Land Order opening the Minchumina lands also provided for the automatic opening of an additional 9,600 acres to homesites, trade and manufacturing sites and headquarters sites on December 31, 1982. An additional 9,600 acres will be opened on December 31, 1983.

Since 1981, BLM has opened 8.8 million acres to mining, 7.7 million acres to mineral leasing, and 3.0 million acres to settlement or FLPMA sales and leases.

c) Issues

Regulations implementing the policy that the Department of the Interior would not charge the State or Native Corporations for certain submerged lands against their entitlement are due to be published by December 1984.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrator: State Director, Alaska

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	^--	--	12,183

^Alaska Lands activities were funded under Lands and Realty Management until FY 1984.

3) Program Obligations

	1982 Actual	1983 Actual	1984 Proposed
Dollars (\$000s)	--	--	12,183
Work Years	--	--	284

C.6. WILDERNESS REVIEW

a) Program Description

FLPMA made the preservation and management of wilderness a part of BLM's multiple use mandate for the public lands. Comprehensive inventories of the public lands were required to identify potentially suitable areas for the National Wilderness Preservation System. Public participation occurs throughout the three major phases of the wilderness review process: inventory, study, and recommendation.

Wilderness study areas must be evaluated in detail to determine whether they are suitable for preservation as wilderness or more suitable for nonwilderness uses. Before lands are recommended to Congress as suitable, they must be surveyed for mineral values by the U.S. Geological Survey and the Bureau of Mines. Based on the study, the Secretary of the Interior will submit recommendations on each wilderness study area to the President. The President, in turn, will send his recommendations for wil-

derness to Congress within 2 years of the Secretary's recommendation. Only Congress can designate areas as part of the National Wilderness Preservation System.

In addition to the overall wilderness review, FLPMA required the Secretary to make wilderness recommendations to the President on areas formally identified prior to November 1, 1975, as natural or primitive areas. By the end of FY 1983, one of these recommendations had been made--Aravaipa Canyon Primitive Area (Arizona).

Lands under wilderness review receive special "interim management." FLPMA states that, during the wilderness review, lands must be managed "in a manner so as not to impair the suitability of such areas for preservation as wilderness." The law makes exceptions for valid existing rights and for grandfathered mining, mineral leasing, and grazing uses.

Wilderness review responsibility in Alaska was modified by the Alaska National Interest Lands Conservation Act of 1980, which exempted BLM lands in Alaska from wilderness review except for 4.5 million acres in the Central Arctic Area.

b) Progress Report

The wilderness inventory in the Western States (excluding Alaska) was completed in November 1980. Of the 174 million acres inventoried, 150 million acres lacked wilderness characteristics and were released from further wilderness review. Some 24 million acres in some 780 separate tracts have been identified as wilderness study areas. A list of the wilderness study areas was published in the *Federal Register* on July 8, 1982, and will be updated in FY 1984.

The review of areas previously listed as natural and primitive areas is nearing completion. On September 13, 1982, the President recommended to Congress that it designate Aravaipa Canyon Primitive Area, in Arizona, as wilderness.

Of the other 52 natural and primitive areas involved, recommendations on 35 are under review within the Department. The remaining instant study areas are being reviewed along with the studies for contiguous lands within BLM's normal wilderness study process.

Management of any BLM administered lands designated by Congress as wilderness will be guided by the Wilderness Management Policy, published in the *Federal Register* on September 24, 1981. BLM's wilderness studies will be guided by the Wilderness Study Policy, published in the *Federal Register* on February 3, 1982. The document contains

planning criteria for recommendations on the suitability or unsuitability of wilderness study areas for wilderness designation. These studies are now underway. Thirty-five wilderness study efforts were completed in FY 1983. By the end of FY 1986, a total of 100 wilderness study efforts will have been completed, covering all BLM wilderness study areas.

During the review, wilderness study areas are managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (IMP), issued on December 12, 1979. Mineral leases issued prior to FLPMA were recognized as valid existing rights through a modification of the IMP on October 5, 1981. While protecting wilderness values to the maximum extent possible, other multiple uses such as grazing and permit exploration and development of energy and mineral potential are permissible under law. The Department's objective is to permit exploration and development activities, especially energy and mineral exploration, to the maximum extent permissible under the law, while protecting wilderness values as much as possible.

The Secretary directed on December 30, 1982, that no leases be issued in BLM wilderness areas or wilderness study areas. The principal exception is in cases where drilling can be done without surface occupancy, and then only if the area is adjacent to producing oil and gas fields or areas prospectively valuable for oil and gas. This exception was prescribed by Congress in the FY 1983 appropriations act.

Approximately 1.5 million acres were deleted from wilderness study area status in FY 1983 to bring the wilderness review into compliance with FLPMA. The lands affected fell into three categories: (1) wilderness study areas smaller than 5,000 acres, (2) "split estate" lands where subsurface mineral rights are not federally owned, and (3) wilderness study areas having wilderness characteristics only when considered in association with contiguous Federal lands administered by another agency. The Interior Board of Land Appeals (IBLA) had ruled that such lands had been improperly identified for wilderness study under Section 603 of FLPMA, and after reviewing the Board's decisions, the Solicitor concluded IBLA was legally correct.

S. 96, a bill to designate 260,000 acres in southwestern Montana as the Lee Metcalf Wilderness Area, was introduced in Congress in 1982. On October 31, 1983, the bill was enacted as Public Law 98-140. The 6,000-acre Bear Trap Canyon included within the legislation became the first wilderness area to be managed by BLM. The remaining 254,000 acres are managed by the Forest Service.

c) Issues

Some wilderness inventory results have been challenged by the public through formal appeals filed with the IBLA. The appeals reflect both pro- and anti-wilderness study viewpoints. In FY 1983, IBLA issued decisions on all remaining appeals except five cases.

The scheduling of wilderness studies is also a public concern because lands remain under interim management constraints that prohibit a variety of multiple uses during the study period. In response to this concern, BLM is attempting to complete studies as rapidly as possible. The majority of areas will have been studied by the end of FY 1985, well ahead of the 1991 deadline set by FLPMA. Rapid completion of the studies will enable "unsuitable" lands to be released expeditiously from interim management constraints.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	13,970	12,179	7,239

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	13,501	11,918	7,239
Work Years	198	180	190

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Inventory (million acres)	4.5	.5	.3
EIS's (final wilderness)	30	35	20
Study (million acres)	2	5	5
Bureau of Mines/U.S. Geological Survey mineral reports	0	5	16

C.7. RECREATION MANAGEMENT

a) Program Description

The primary objective of BLM's recreation program is to facilitate the use of dispersed and resource dependent recreation (such as off-highway vehicle use, river rafting, hiking, camping, and fishing) by providing (1) information on available recreation resources; (2) input to Bureau planning efforts where recreation issues exist; and (3) visitor assistance, use supervision, and Recreation Area Management Planning in more intensively used areas.

Nearly all of the public lands managed by BLM are open to recreational use. Areas with specially recognized recreational values include:

- 108 recreational rivers with more than 4,000 miles suitable for floatboating or whitewater use. Thirteen rivers—the Rio Grande, North Fork American, Upper Missouri, Rogue, Beaver, Birch Creek, Delta, Fortymile, Gulkana, Unalakleet, Eel, Trinity, and Klamath—are designated as National Wild and Scenic Rivers. Twenty-two more rivers are currently being considered for inclusion in the system.
- 19 designated components of the National Trail System with nearly 2,000 miles under BLM management; and
- Three National Conservation Areas—Steese, Alaska; California Desert and King Range, California; and one National Recreation Area—White Mountains, Alaska.

A major recreational activity on the public lands is the use of off-road vehicles (ORV's) such as motorcycles, minibikes, trail bikes, snowmobiles, dune buggies, and all terrain vehicles. The widespread use of such vehicles began in the late 1960's and increases significantly each year. BLM recognizes ORV use as a legitimate recreational activity; however, because of conflicts with other recreation activities and resource uses (range, wildlife, cultural, etc.), BLM often designates public lands as open, closed, or limited to ORV use.

b) Progress Report

Major program accomplishments in FY 1983 include the following:

- A policy to focus expenditures of funds on the highest priority recreation areas was implemented.
- Use supervision was provided in as many as 90 special recreation areas, including California Desert Conservation Area, King Range Conser-

vation Area, Lower Colorado River, Red Rocks Canyon Recreation Lands; and many of the popular floatboating rivers in the West were managed intensively. Estimated visits are approximately 55 million.

- More than 4,000 special recreation permits were issued with an estimated commercial value of \$75 million.
- A fee policy and regulations underwent final review and revision in FY 1983. Fee increases were begun using existing regulations.
- A management plan for long-term visitor management in the California Desert and Lower Colorado River was developed in California and Arizona.
- Six draft "wild and scenic river" studies were completed in Alaska and are undergoing public review. The BLM also contributed to a study of the Denali Scenic Highway in Alaska.
- 43 CFR Part 8360 was revised to provide rules of conduct for recreation management.
- A "Volunteer Guide Book" was published and distributed to field offices to facilitate the recruitment and use of volunteers in recreation management.
- New policy direction for the Visual Resource Management function in the BLM that focuses Bureau efforts on improving the visual aspects of project design and reduces the emphasis on inventory and visual assessment was developed and implemented.

c) Issues

BLM is giving priority to special recreation areas with National significance. In conjunction with this effort BLM is examining the development of procedures and incentives to place funding and management responsibilities for areas of greater significance locally than nationally with States and/or the primary beneficiaries of those recreation opportunities.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	5,688	6,489	6,516

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	5,620	6,470	6,516
Work Years	167	175	170

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Visitor Assistance (work years expended).....	20	44.5	57.2
Recreation Area Management Plans	42	21	28
Special Recreation Permits Issued	5,340	4,700	4,000

C.8 NATURAL HISTORY RESOURCE MANAGEMENT

a) Program Description

FLPMA requires that BLM provide for scientific use of appropriate natural resources as an integral part of multiple use management. FLPMA also requires BLM to protect the quality of ecological and other scientific resources, and to preserve certain public lands in their natural condition. Similar provisions are contained in the Alaska National Interest Lands Conservation Act, the Oregon and California Grant Lands Act, the Land and Water Conservation Fund Act, the Taylor Grazing Act, and the National Environmental Policy Act.

BLM is required to consider scientific resource values in formulating, approving and implementing resource development and management plans. In addition, the Natural History Resource Management (NHRM) Program is being developed to enhance BLM's contributions to programs such as the Federal Research Natural Area Program, State Natural Heritage Programs, and the National Natural Landmarks Program.

Through the NHRM Program, BLM identifies natural areas on public lands having significant scientific and educational values; develops and implements site specific measures to protect these areas (while

allowing all compatible uses), and facilitates use of these areas by researchers, educators, and others in environmental science fields. BLM coordinates its efforts with other Federal agencies, state and local governments, and private institutions to identify the types of natural areas needed in a balanced national system.

In 1951, BLM first contributed to the national system of designated Research Natural Areas (RNA's) to maintain natural diversity and facilitate observational scientific research. In total, 47 RNA's have been designated on 124,000 acres of public lands. Reviews are underway on 45 additional sites.

BLM also participates in the National Park Service's National Natural Landmarks (NNL) Program, established by the Secretary in 1963. The purpose of the program is to identify and encourage protection of scientifically selected areas throughout the United States that are nationally significant representatives of the country's natural heritage, without discrimination as to ownership or administrative jurisdictions. Of the 548 National Natural Landmarks designated by the Secretary, 43 occur wholly or in part on BLM-administered public lands.

b) Progress Report

Program accomplishments during FY 1983 include:

- 71 existing and potential Research Natural Areas and National Natural Landmarks were protected from unauthorized uses.
- 19 sites totaling 26,122 acres in Colorado, Oregon, Washington, and Wyoming were established as Research Natural Areas, and 33 additional sites were evaluated to determine their suitability for RNA establishment.
- Eureka Dunes ACEC, 4,200 acres in the California Desert, was designated by the Secretary as a National Natural Landmark.
- BLM's 3,360-acre Northern California Coast Range Preserve RNA/ACEC was designated by the United Nations Educational, Scientific, and Cultural Organization's Man and the Biosphere Program's International Bureau as part of the California Coast Ranges Biosphere Reserve. This designation unites eight owners under common goals for five separate areas that contain the scientifically most valuable examples of ecological diversity in the Oregon Coast Range.
- Formal agreements were signed with the Executive Director of Colorado's Department of Natural Resources, thereby designating two BLM RNA's as Scientific Natural Areas under the State's Natural Areas Act.

●The California State Director signed a Memorandum of Understanding (MOU) with the Forest Service, National Park Service, and U.S. Fish and Wildlife Service; the State Departments of Fish and Game and Parks and Recreation; and The Nature Conservancy. The MOU established executive and staff coordinating committees and general procedures for interagency cooperation in the identification, selection, and management of significant natural areas throughout the State. It is the first formal agreement joining both the major Federal and State agencies with a private conservation organization in the operation of a natural areas program, especially one established by State law or based on a State Natural Heritage Inventory Program.

●The Colorado State Office and Colorado Department of Natural Resources signed a cooperative agreement establishing a Geologic Advisory Group of 27 academic, private, and governmental geologists and paleontologists from across the State. The new group will contribute information and advice for joint BLM-State efforts to record locations, natural conditions, and management status of geologic element occurrences on public lands. It will also provide evaluations and management recommendations for the top priority geologic occurrences identified as potential BLM/State Research Natural Areas.

●A Recreation and Public Purposes Act patent for 280 acres of public land near Boise, Idaho, was issued to the Peregrine Fund for the establishment of a world center for research, education, breeding, and reintroduction of raptors. The location will allow the Fund to work with Boise State University and to use the nearby Snake River Birds of Prey Research Natural Area.

d) Budget and Performance Analysis (Natural History and Cultural Resources)

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	5,688	4,566	4,605

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	5,620	4,467	4,605
Work Years	167	120	120

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Site Protection (#).....	53	71	67
Site Evaluation (#)	31	33	35
Site Designation (#).....	6	19	10

C.9. CULTURAL RESOURCE MANAGEMENT

a) Program Description

The National Historic Preservation Act, supported by the Federal Land Policy and Management Act, gives BLM its primary direction for managing the Federal Government's largest cultural resource base. In a partial inventory, BLM has recorded approximately 100,000 archaeological and historic properties and estimates that a full inventory would show five million properties on BLM-administered lands.

The inventory sample shows a highly varied physical record of some 20,000 years of human history. Representations of this long past include: the scarcely noticeable scatters and deposits of prehistoric stone tools marking temporary work sites of the hemisphere's earliest human occupants; twelfth-century A.D. masonry pueblos and cliff dwellings of the Southwest; still visible ruts of early-settlers' wagon trails; abandoned military posts; mysterious aboriginal rock art; mining ghost towns with Victorian-era architecture; failed homesteads; and many others.

In its cultural resource management program, BLM identifies, records, evaluates, plans for, and makes informed judgment as to the use of the cultural resources under its jurisdiction. Those that should be conserved against human-caused or natural deterioration are protected. The program's original role was to ensure compliance with the National Historic Preservation Act, the National Environmental Policy Act, and Executive Order 11593. Compliance with these requirements continues to be a major workload feature, however, the focus of the program under FLPMA has shifted toward full management of cultural resources.

b) Progress Report

Program accomplishments through FY 1983 include the following:

- More than 290 BLM cultural properties are now on the National Register of Historic Places. Approximately 400 additional properties have been nominated or determined eligible for inclusion. Also, an estimated 15,000 properties have been evaluated as possibly suitable for nomination, a number that is increasing at a rate of over 1,000 properties per year.
- Inventories of existing cultural resource data have been compiled for about 75 per cent of BLM-administered lands. In addition, low percentage sample inventories were completed on about 5 million acres in FY 1983.
- New emphasis was placed on using sample inventory results together with other known data to concentrate intensive inventory where it is most likely to reveal significant cultural properties. Predictive modeling of this kind was the subject of several memoranda of agreement with the Advisory Council on Historic Preservation. Modeling reduces inventory time and costs and eliminates unneeded inventory without creating undue risks to significant cultural properties.
- Approximately 14,000 cultural properties have been evaluated and classified according to one or more BLM categories of use: socio-cultural use, current or potential scientific use, management use, and conservation for future use. These classifications give field managers a sound basis for considering the importance of the properties when making multiple use decisions.

- Nearly 25,000 fragile and threatened cultural properties were protected by one or more means, including patrolling, posting signs, erecting fences, and site stabilization; periodic patrol was carried out over nearly 2.5 million acres of public lands.
- Draft cultural resource program regulations, including BLM procedures for complying with the National Historic Preservation Act, have been prepared. When released, these regulations will integrate governmentwide requirements into BLM management systems.
- Procedures for meeting the permit provisions of the Archaeological Resources Protection Act were prepared, and will be issued when uniform regulations for the Act are published.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Land Resources

Field Administrators: State Directors

2) Funding and Program Obligations

The Cultural Resource Program is funded together with the Natural History Program

3) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Inventory (million acres)	.9	.5	.5
Major Protection/Stabilization (# projects)	41	42	48
Permits (#)	384	298	350

D. Renewable Resources



D. RENEWABLE RESOURCES

D.1. LIVESTOCK GRAZING MANAGEMENT

a) Program Description

The Bureau of Land Management administers grazing by livestock on 170 million acres of public rangelands in 11 Western States (exclusive of Alaska). Rangelands are lands on which the native vegetation is predominantly grasses, grasslike plants, forbs, or shrubs. Grazing permits are issued for up to ten years and authorize the annual grazing use by approximately 22,000 livestock operators.

BLM's rangeland management program is guided by the Taylor Grazing Act (TGA) of 1934, FLPMA, and the Public Rangelands Improvement Act (PRIA) of 1978. These acts outline the following broad goals for rangeland management and improvement:

- To administer livestock grazing on public rangelands to balance use and sustain resource productivity;
- To protect and improve the rangeland resources through sound land use planning, which includes making cost effective investment and management decisions;
- To make decisions in consultation, cooperation, and coordination with the lessees/permittees involved, the affected landowners, interest groups, individuals, and other agencies; and
- To make sure that improvements in rangelands provide multiple-use benefits.

The Bureau conducts soil and vegetation inventories at varying intensities to aid the land use planning process and to provide a baseline for monitoring. Monitoring studies are conducted to determine if rangeland management goals are being met and to determine the need for and extent of changes from current management practices.

b) Progress Report

The rangeland management program is influenced by the judgment of the U.S. District Court in the case of the *Natural Resources Defense Council, Inc., et al. v. Rogers C. B. Morton, et al.* The 1975 court order, as amended in 1978, requires BLM to prepare 144 site specific grazing Environmental Impact Statements (EIS's) by 1988. BLM is essentially on schedule in meeting this order; 84 EIS's had been filed by September 30, 1983. These EIS's addressed livestock grazing on 106 million acres of public lands in 10 States; an additional 22 EIS's,

covering 27 million acres, will be completed in FY 1984.

A major objective of the past year has been to identify additional ways to reduce the cost of preparing the required EIS's, while still meeting the intent of the National Environmental Policy Act and the amended court order. Implementation of policy changes developed during FY 1982 has helped to reduce the average cost of preparing an EIS from \$391,000 in FY 1978 to less than \$127,000 in FY 1983.

The BLM, together with the Forest Service, has continued to conduct the Experimental Stewardship Program (ESP) authorized by PRIA. The purpose of the ESP is to explore ways to improve the public rangelands by providing incentives for, or rewards to, livestock operators whose grazing management results in improved resource conditions. The primary emphasis of the ESP continues to be improving rangelands through increased cooperation among all rangeland users involved.

Allowing individual operators to deduct half of the money they invest in rangeland improvements from their grazing fees is an incentive now being tried in the three ESP projects the BLM jointly administers with the Forest Service in Challis, in central Idaho; Modoc/Washoe, in northeastern California and northwestern Nevada; and East Pioneer, in southwestern Montana. The BLM also is continuing to evaluate various incentives through two projects with groups of livestock operators and other rangeland users, and with individual livestock operators. The two group projects are the Tonopah ESP in central Nevada and the Randolph ESP in northern Utah. The 16 experimental projects with individual operators are ongoing in several States.

Based on the early results of the ESP and similar cooperative management efforts with State wildlife agencies and volunteer groups, the BLM has initiated a Cooperative Management Agreement (CMA) program. The BLM will enter into CMA's with livestock operators, wildlife and recreation organizations, and other user groups for shared management of a specific activity on a specific area of public land. The primary purpose of the CMA program is to involve public land users in on-the-ground management to: (1) increase public involvement in public land management, (2) provide the public with facilities and levels of use not possible under BLM capabilities alone, and (3) provide recognition to individuals and groups contributing to public land management. The terms and conditions of a CMA will require all cooperating groups to adhere strictly to the multiple use and sustained yield objectives identified through BLM's land use

planning process. A CMA will not give a cooperator the authority to limit or exclude other public land users, nor does it exempt a cooperator from laws and regulations affecting public land management.

The BLM and the Forest Service are proceeding with their joint review of the current grazing fee formula, as required by PRIA. That act established the current formula for a 7-year trial period (1979-1985) and requires the Secretaries of the Interior and Agriculture to submit a report to Congress by December 31, 1985. The report is to include an evaluation of the grazing fee formula set by Congress, an evaluation of other fee options, and the Secretaries' recommendations for a grazing fee system for 1986 and subsequent years. The BLM and FS are completing the field work in a joint appraisal of the fair market grazing rental value of public grazing lands in the 16 Western States. Fair market value for public grazing lands was last established in 1966, following a survey of 10,000 ranchers. Approximately 50,000 private grazing leases containing 100 million acres were surveyed during the current appraisal. In June 1983, Colorado State University completed a contracted study of grazing fee systems used by state and local governments and other Federal agencies in the Western States. The researchers identified over 100 agencies that lease grazing lands, and their report assesses the different leasing arrangements, the rationale for the leases, and the distribution of grazing fee receipts.

c) Issues

Some wildlife and environmental interest groups are opposed to cooperative management agreements (CMA's) with livestock operators on the grounds that BLM would be turning over too much management authority to the operators. This issue, however, is more a matter of perception than substance. The BLM recognizes that operators have an economic interest in grazing use and, consequently, have incorporated numerous environmental safeguards into the CMA program. Although a CMA will allow an operator to adjust the season and amount of grazing use, these adjustments must be within parameters set by BLM. In addition, the operator's grazing management practices must help achieve the multiple use and sustained yield objectives set for the allotment through the land use planning system. Failure to meet these objectives may result in modification or termination of the CMA. Only operators who are nominated and approved by their peers as outstanding grazing managers, and who are operating on allotments where no user conflicts exist, will be eligible for CMA's.

Grazing fees collected for public land use remain an issue. The fee is calculated annually, using a

formula provided in PRIA. In FY 1983 the fee was \$1.40 per Animal Unit Month (AUM), down from \$1.86 in 1982. This 1983 fee of \$1.40 contrasts with the average private grazing land lease rate of \$8.85 per AUM for the same period. The two rates are not directly comparable, however, and one reason for the 7-year trial period for the current grazing fee formula is to allow time for the Secretaries of the Interior and Agriculture to refine their data on the value of public land grazing.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors, District Managers

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	36,138	34,754	31,360

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	34,822	34,614	31,360
Work Years	997	957	830

4) Performance

	1982 Actual	1983 Actual	1984 Planned
Grazing EIS's Completed (#)	21	17	22
Millions of Acres Inventoried.....	23.5	9.8	3.7
AMP's Implemented (#)	220	161	197
Allotments Supervised (#)	3,546	9,138	10,400
Grazing Permits Issued (#) ...	26,418	27,100	26,300
Allotments Monitored (#)	5,106	5,044	4,800

D.2. RANGE IMPROVEMENT

a) Program Description

The Bureau's rangeland improvement program is authorized by the Taylor Grazing Act (TGA) of

1934, the Federal Land Policy and Management Act (FLPMA) of 1976, and the Public Rangelands Improvement Act (PRIA) of 1978. These three Acts establish and reaffirm a national commitment to improve the condition of the public lands, with resulting benefits to wildlife, watershed, and livestock. Range improvement activities include, but are not limited to, seeding, fence construction, weed control, water development, enhancement of fish and wildlife habitat, and maintenance of existing improvements. Decisions on the types of improvements needed are reached through the land use planning/EIS process.

Congress annually appropriates funds from two sources to support the Bureau's rangeland improvement program. The range betterment fund consists of 50 percent of all public land grazing fees collected, or \$10 million a year, whichever is greater. These funds are appropriated under the authority of the TGA, as amended by FLPMA, specifically for rangeland improvement work. Grazing administration funds consist of funds appropriated by Congress under FLPMA and PRIA, which also may be allocated to range improvement. The Bureau currently directs range betterment funds toward implementation of new on-the-ground improvements, while grazing administration funds are used for administration of the range improvement program, preparation of environmental and resource clearances, and other actions needed or required by law to support new improvements. Most maintenance for which BLM is responsible is funded from grazing administration funds.

b) Progress Report

The Bureau gradually is transferring responsibility for maintaining structural rangeland improvements to individuals directly benefiting from the improvements. When the transfer is completed during 1984, funds now being spent for maintenance will be available for new improvements.

To increase the amount of funds available for improvement work, the Bureau is encouraging private contributions toward rangeland improvements on public lands. Final policy directives issued during FY 1983 provide incentives for private contributions, including assigning a high priority to implementation of improvements funded with private contributions.

New economic analysis procedures for making decisions about investments in rangeland improvements were implemented by BLM during FY 1983. These procedures, which consist of three gradually tighter economic screens, will help determine which grazing allotments can produce the greatest return on dollars invested and where the dollars should be

invested first. Investments that cannot be justified strictly on economic terms must demonstrate overriding resource or social concerns. District Grazing Advisory Boards will have an active role in the decisionmaking.

c) Issues

No current issues exist.

d) Budget and Performance Analysis (Range Improvement)

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors, District Managers

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	13,226	11,200	10,000

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	10,224	12,058	10,000
Work Years	153	148	130

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Projects Developed			
Water Facilities	872	683	856
Miles of Fence	509	605	633
Management Facilities	169	112	132
Projects Surveyed & Designed	2,888	1,263	1,271
Projects Maintained			
Water Facilities	1,698	1,296	1,300
Miles of Fence	433	230	300
Management Facilities	115	143	100

D.3. SOIL, WATER, AND AIR MANAGEMENT

a) Program Description

Protection and management of the soil, water, and air resources of the public lands are basic responsibilities of BLM and are central to both the short- and long-term objectives of BLM programs. Increased environmental awareness and concern for these resources resulted in several new laws and executive orders in the last decade, among them the Federal Water Pollution Control Act Amendments, Safe Drinking Water Act, Clean Water Act, Colorado River Salinity Control Act, Clean Air Act, and the National Environmental Policy Act.

The program conducts soil and water inventories and supports studies and research of water quality and quantity, air quality, erosion, and watershed practices to improve the effectiveness of BLM's management of the soil, water, and air resources associated with public lands. Soil and water inventory data provide much of the resource information needed for multiple-use planning and preparation of environmental impact statements and assessments. Soil surveys help determine soil-vegetative relationships, which are used to develop guidelines for rangeland management. Soil surveys also provide the basic data for range resource inventories. These data also contribute to successful operation of other BLM programs, such as energy development or recreation. BLM monitors climate, meteorology, and air quality to support multiple-use planning, prescribed burning, rangeland management, energy and mineral leasing, and other resource programs.

b) Progress Report

In the past fiscal year, 9.1 million acres of soils were inventoried, bringing the total number of acres inventoried to 119.8 million acres. Only 44.6 million acres, or 27 percent of the total planned, remain to be inventoried.

Almost 50 percent of the total workload necessary to identify and quantify water use is now complete. The Bureau will share this information with States to help them identify what water sources on public lands are available for appropriation under State water law.

The BLM's air resource program supports the National Acid Precipitation Assessment Program by operating acid rain monitoring stations at remote locations in nine Western States. These stations are providing data essential for the development of national acid precipitation maps to determine the

trends and possible impacts of acid deposition in the western United States.

c) Issues

No current issues exist.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: District Managers

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	17,042	16,946	16,595

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	16,648	16,488	16,595
Work Years	322	318	310

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Millions of acres inventoried.....	35.1	15.9	14.7
Studies conducted	569	243	155
Water sources inventoried	1,692	2,198	8,283

D.4. FOREST MANAGEMENT

a) Program Description

Approximately 90 million acres of the land under BLM's jurisdiction is forest land. Most of this (64 million acres) is in Alaska where timber development has been deferred until State selection, native claims, withdrawals, and other dispositions are completed. Of the remaining 26 million acres of forest land outside of Alaska, 5 million acres are capable of producing high quality commercial timber in quantities sufficient to warrant intensive management.

The remaining 21 million acres, called "woodlands," are covered with open-grown stands of widely scattered trees. Historically, these lands have not been considered valuable as a commercial wood source, although they do produce posts, poles, Christmas trees, and fuelwood. Woodlands often are managed less intensively than commercial timber lands, but for a variety of values including wood products, livestock forage, wildlife habitat, recreational uses, watershed protection, and minerals.

By far the most commercially valuable of the timber lands managed by BLM are the 2.4 million acres in western Oregon known as the "Oregon and California (O&C) railroad grant lands" and the "Coos Bay Wagon Road (CBWR) grant lands." They were granted originally to private ownership in the 1800's for railroad and wagon road development but were returned to the Federal Government when the developers failed to meet the terms of their land grants. Among the most productive forests in the country, these lands produce about 91 percent of the total board feet annually harvested from BLM forests. The timber produced on BLM lands outside of western Oregon is important to many small western communities.

b) Progress Report

In March 1983 Director Burford signed a new policy statement for managing the forest resources in the O&C forest of western Oregon. Following this guidance, new 10-year timber management plan decision documents were issued for the O&C lands in western Oregon. A new full allowable cut level of 1.185 billion board feet has been established.

BLM continued its program to offer sales of logging residue and small salvage sales. Over 3,280 tracts totaling over 40 million board feet were offered for sale in FY 1983.

Because of the depressed lumber market and unusually high bidding on timber sales from 1979 through 1981, the Secretary declared that timber sale contracts executed prior to October 1, 1982, will not expire until July 1, 1984. Approximately 2.4 billion board feet of timber sold at a price of nearly \$740 million are affected.

OPurchasers of the affected timber obtained partial relief when President Reagan signed a memorandum on July 27, 1983, authorizing the Secretaries of the Interior and Agriculture to extend certain timber sale contracts for a period up to 5 years beyond their current termination dates.

BLM timber sales affected by this Order will be

staggered in such a manner as to spread the default dates over a 5-year period. As a condition of participation, the purchasers had to agree by November 30, 1983, to certain terms and conditions set forth in an extension agreement between BLM and the purchasers.

c) Issues

Proposals to set aside timberlands for purposes that do not allow logging and consequently reduce the timber harvest continue to be a major issue. BLM expects this issue to be raised over and over as land use plans are developed.

The use of chemical herbicides as a management tool continues to be an issue, especially in western Oregon where appeals and legal actions are affecting implementation of vegetation management programs.

Demand has increased dramatically for fuelwood from all forest lands, both for personal and commercial use. In many areas, improved inventories and economic, social, technological, and environmental studies are needed before program expansion can be administered effectively.

d) Budget and Performance Analysis: Forest Management (O&C)

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: Oregon State Director, District Managers, Salem, Eugene, Coos Bay, Roseburg, and Medford, Oregon

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	37,245	37,741	40,351

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	31,689	36,849	40,351
Work Years	853	912	752

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Timber Sold (MBF)	1,093,345	1,106,000	1,061,000
Acres Reforested	20,052	15,730	19,000
Land Treatment (acres)	43,445	29,346	53,000
Site Preparation (acres).....	23,227	13,876	21,000
Protection (acres)	10,690	8,500	7,000
Release (acres)	9,528	6,970	25,000

e) Budget and Performance Analysis: Forest Management (Management of Lands and Resources)

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors, District Managers

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	8,263	5,706	6,112

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	8,138	5,701	6,112
Work Years	232	140	145

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Timber Sold (MBF)	100,800	93,019	92,000
Acres Reforested	1,676	936	1,135
Land Treatment (acres)	1,210	3,055	2,382
Site Preparation (acres).....	666	970	1,882
Protection (acres)	502	1,910	360
Release (acres)	42	175	140
Precommercial thinning (acres)	532	547	493

D.5. WILDLIFE HABITAT MANAGEMENT

a) Program Description

The Bureau of Land Management manages extensive and diverse habitat for hundreds of wildlife

species. These resources are prized for their recreational, scientific, educational, social, economic, cultural, subsistence, and esthetic values. Some 80 federally listed threatened and endangered plant and animal species have been identified on the public lands. Endangered species legislation, passed in 1979 and amended in 1982, added a new dimension to management of the Nation's wildlife by providing a means for conserving and managing ecosystems essential to plants and animals in danger of extinction.

Working with State wildlife agencies, BLM carries out its mission of managing fish and wildlife habitats on the public lands by ensuring that wildlife needs are considered in all land-use planning and decisionmaking. BLM has executed memoranda of understanding and numerous cooperative agreements with 14 Western States and 7 States in the East. To summarize these arrangements, the States are responsible for wildlife population management, while BLM is responsible for managing the habitat on public lands. By protecting and improving habitat on public lands, BLM helps compensate for population losses caused by declining habitat. The interdependence of habitat and population management makes the close coordination between BLM and the States a critical element in BLM's wildlife management program.

The FLPMA recognized wildlife as one of the principal uses of the public lands. It further increased BLM's authority, as well as its responsibility, to manage, protect, and enhance wildlife resources. Since the passage of FLPMA in 1976, BLM has increased its efforts to inventory, plan for, and implement on-the-ground management and use of terrestrial and aquatic wildlife habitat.

b) Progress Report

Special attention in FY 1983 was focused on several key wildlife management activities, among them are:

● *Inventory and Planning* Continued with streamlined inventory and data analysis techniques for threatened/endangered and other wildlife species and focused data collection on those BLM lands where critical issues or potential conflicts are the greatest. Inventory efforts have been shifted from extensive to intensive.

● *Monitoring* Continued with coordinated renewable resource monitoring programs for evaluating the effectiveness of management actions. The monitoring process focused on areas where: (1) management decisions are being implemented, or (2) information is needed to resolve significant resource management issues or

conflicts. Monitoring is aimed at resolving significant issues with other activities such as energy development, grazing, and rights-of-way.

● **Endangered Species Act (ESA)** Worked with the U.S. Fish and Wildlife Service to streamline the ESA Section 7 consultation process to ensure timely threatened/endangered species clearance on energy related projects. Initiated directives to implement amendments to the ESA.

● **Habitat Improvement** Continued cooperation with State wildlife agencies to ensure conservation and rehabilitation of wildlife habitat under the Sikes Act and FLPMA authority.

● **Endangered Species Recovery** Cooperated with State and Federal wildlife agencies in the implementation of recovery plans by providing habitat for the release of captive-reared peregrine falcons. Continued work with USFWS and State of Wyoming in implementing studies to determine effects of oil and gas development on the endangered black-footed ferret. Also assisted in developing new inventory techniques.

c) Issues

The wildlife program needs to further concentrate and streamline its coordination with other Bureau programs. This will ensure that managers have the most complete and comprehensive wildlife information when making multiple-use resource decisions.

d) Budget and Performance Analysis .

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: District Managers

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	14,918	15,150	13,515

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	14,688	15,014	13,515
Work Years	382	351	295

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Millions of acres inventoried.....	27.2	55.2	10.4
Miles of Stream inventoried..	8,150	400	1,045
New HMPs prepared and revised	124	165	50
Thousands of acres of wildlife habitat improved....	1,506	1,200	6,249
Miles of stream habitat improved.....	2,996	2,800	744
Millions of acres of wildlife habitat maintained.....	0.9	1.0	9.5
Miles of stream habitat maintained.....	3,398	3,300	700
Millions of acres monitored...	1.8	3.6	18.2
Miles of stream habitat monitored	1,800	1,000	1,690

D.6. WILD HORSE AND BURRO MANAGEMENT

a) Program Description

The protection, management, and control of wild horses and burros on public lands administered by BLM were entrusted to the Secretary of the Interior¹ by the Wild Free-Roaming Horse and Burro Act of 1971. The Act has been amended by provisions contained in the Federal Land Policy and Management Act of 1976 and the Public Rangelands Improvement Act of 1978. The amendments significantly improved and strengthened BLM's management capabilities.

The 1976 amendment allowed the use of helicopters and motorized vehicles for removing excess animals. Prior to that, capture operations were slow, dangerous, and costly. The 1978 amendments were much broader in scope and focused on improving management through research and consultation; establishing priorities for removal and disposal of excess animals; and strengthening the adoption process. For the first time, adopters of excess animals were given the opportunity to acquire ownership of the animals through transfer of title by the government.

Based on the legislative mandates, BLM's wild horse and burro program objectives are:

1) To preserve wild free-roaming horses and burros on public lands as symbols of our heritage and to enhance the diversity of life forms;

¹ The Forest Service through the Secretary of Agriculture shares in the responsibility. However, 95 percent of the animals are on BLM-administered lands.

2) To protect wild free-roaming horses and burros from illegal capture, branding, harassment, or death;

3) To manage wild free-roaming horses and burros as components of the public lands in a manner that maintains or improves the rangeland ecosystem; and

4) To provide humane care and proper treatment of captured wild horses and burros.

b) Progress Report

Fiscal Year 1983 was a year of change in BLM's wild horse and burro program, as revisions were sought to improve the effectiveness and cost efficiency of the program. Primary emphasis was placed on the adoption program as severe weather, declining economic conditions, and increased adoption fees sharply reduced the number of excess animals placed in private maintenance during the first half of the fiscal year.

A moratorium on destruction of healthy excess wild horses and burros established in January 1982 continued throughout FY 1983. The BLM sought an alternative to the destruction of healthy animals, and the Interior Department supported legislation that would authorize the sale at public auction, in addition to the currently authorized destruction, of excess animals for which no adoption demand by qualified individuals exists. Two public hearings on the legislation were held by the Senate Subcommittee on Public Lands and Reserved Waters, but no further action on the legislation was taken by Congress. Excess animals were maintained in adoption centers for longer periods of time than in the past, increasing costs and reducing the BLM's ability to remove excess animals from the public lands. At the end of FY 1983, approximately 2,300 excess animals were being held in adoption facilities.

Regulations formally establishing adoption fees of \$200 per horse and \$75 per burro plus transportation costs (if any) were proposed in FY 1982. As a result of public comments on the proposed rule-making and an analysis of program costs, the final regulations published on March 4, 1983, lowered the wild horse fee to \$125 per animal. A provision requiring submission of a nonrefundable \$25 advance payment with the adoption application form also was included to reduce costs associated with maintaining the application file, screening applicants not seriously interested in adopting, and notifying them of the availability of animals.

The number of animals adopted increased slightly during the second half of FY 1983. New publicity efforts, the opening of a new year-round adoption center in Collinsville, Texas; and the increased use

of temporary adoption centers, particularly in the Eastern States, California, and Oregon; combined with the lower wild horse adoption fee to contribute to the improve outlook for the program. Twenty-seven temporary centers were operated during the year.

The final report of the National Academy of Sciences' Committee on Wild and Free-Roaming Horses and Burros, compiling the results of a 3-year, \$1.6 million study required in 1978 amendments to the act, was forwarded to Congress in January 1983. The report summarized and interpreted the results of five individual research projects contracted to western universities on wild horse and burro demography, census methods, nutrition, habitat preference and use, range relationships with other large herbivores, and impacts on vegetation, and made management-related recommendations to the agencies. While conclusions were limited in scope, the findings are being incorporated into guidance for field offices.

Population estimates were updated at the end of FY 1983, based on updated census results and extrapolation from previous years' information:

Estimated Current Populations

State	Horses	Burros
Arizona.....	115	3,625
California	4,106	5,900
Colorado.....	675	0
Idaho.....	811	0
Montana	141	0
Nevada.....	29,642	1,744
New Mexico	165	14
Oregon.....	3,748	25
Utah.....	1,636	50
Wyoming.....	7,959	0
Total.....	48,998	11,358

Six lawsuits filed against the Department of the Interior concerning various aspects of the wild horse and burro program were resolved in FY 1983, and one new suit was filed. The four outstanding cases address requests from private landowners that the BLM remove animals that have strayed from public lands.

c) Issues

Public concern continues to focus on four issues:

1) decisions on how many wild horses and burros will be managed on public lands and the number of excess animals that must be removed;

2) the disposition of excess animals;

3) the cost effectiveness of the removal and adoption program; and

4) the removal of straying wild horses and burros from private land.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Renewable Resources

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	5,418	4,877	4,974

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	5,334	4,877	4,974
Work Years	102	95	90

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Million of Acres Inventoried ..	16.4	12.2	12.1
Number of Animals Adopted	7,250	5,095	6,330
Number of Herd Management Area Plans developed	11	15	10
Number of excess animals removed from public lands	9,350	6,658	6,392
Number of compliance checks (adopters)	1,200	560	261
Number of titles issued	6,423	5,925	4,739

E. Support Services

E.1. LAW ENFORCEMENT

(i) Program Description

Law enforcement efforts are the primary responsibility of the Department of Justice, Office of the Inspector General (OIG), the FBI, the State Department, and the Department of Homeland Security. The Department of Justice, Office of the Inspector General (OIG) is the primary law enforcement agency for the Department of Justice. The Department of Justice, Office of the Inspector General (OIG) is the primary law enforcement agency for the Department of Justice. The Department of Justice, Office of the Inspector General (OIG) is the primary law enforcement agency for the Department of Justice.



E. SUPPORT SERVICES

E.1. LAW ENFORCEMENT

a) Program Description

Law enforcement efforts on the public lands administered by BLM began shortly before the passage of FLPMA. The Wild Free-Roaming Horse and Burro Act of 1971 provided basic authority for the hiring of BLM's first special agents. Amendments to the Sikes Act of 1974 and other subsequent special acts added additional authority in specified areas. But the passage of FLPMA provided general law enforcement authority for all BLM lands.

The legal jurisdiction on the public lands is proprietary (having less than absolute and exclusive right) in nature. Therefore, State law also applies to the public lands and their resources.

BLM relies on three separate levels for its total law enforcement program:

1) Special Agents, i.e., criminal investigators, who investigate major violations of Federal laws pertaining to the public lands. They are also responsible for total program coordination and liaison with State and local law enforcement officials.

2) Rangers, uniformed employees with law enforcement authority, currently are assigned only to the California Desert Conservation Area. They prevent violations by providing a high visibility through patrolling the public lands.

3) Law Enforcement Agreements with State and local police agencies that provide requested law enforcement services.

BLM law enforcement specialists estimate that 85 percent of their work involves crimes against property. Something of the value and diversity of public land resources affected can be seen in the list of cases that Special Agents have investigated in the last 5 years: timber theft, wild horse killing and theft, desert land entry fraud, removal and theft of cactus for commercial use, mineral theft, range arson, destruction of recreation sites, trespass on public lands, removal or defacement of antiquities, public lands survey marker destruction, oil and gas lease fraud, and the illegal growing of marijuana.

In 1983, BLM employed 17 Rangers and 26 Special Agents, all well-trained in law enforcement. Many of them have degrees in some phase of public land management, and all have completed an 8-week police training course at the Federal Law Enforcement Training Center or its equivalent.

b) Progress Report

In 1983, joining with other Federal, State, and local agencies, BLM made a good start toward eradicating marijuana on public lands in California, Oregon, Idaho, and other Western States.

California's Campaign Against Marijuana Planting (CAMP) program has been acclaimed by the State Attorney General, the Drug Enforcement Administration, the local sheriffs, and other Federal agencies. BLM played a leadership role in supporting and helping to organize CAMP in 1983. Over 65,000 plants were destroyed, representing an estimated \$130 million worth of marijuana.

The Oregon Command Center approach, in which BLM also participated, was equally successful, making seizures amounting to millions of dollars.

In cooperation with the Denver Service Center Scientific Systems Division, the Eastern States Office law enforcement staff has implemented a surveillance system for Federal mineral ownership areas using Landsat digital data gathered by satellite. The system was developed to reduce field detection time and provide an annual watch over large tracts too vast for effective ground patrol.

Major investigations were initiated regarding:

- Thefts of wild horses from the public lands;
- Thefts of timber;
- Theft of native desert vegetation in the Southwest; and
- Abuse of adopted wild horses and burros.

Convictions have been obtained in all these areas and several were precedent setting.

In addition to criminal violations, there are numerous cases of unauthorized use that are administrative or civil in nature. These also require law enforcement actions. Unauthorized use accounts for nearly 80 percent of all violations of regulations or laws that are used to administer the public lands.

BLM has established a Resource Protection Staff trained to deal effectively with both criminal and civil violations. This balance of law enforcement expertise provides for complete integration of the Resource Protection Program in natural resource management as suggested by BLM's Law Enforcement Program Analysis of October 1978.

c) Issues

An increasing area of activity in California and Oregon is BLM law enforcement assistance to local

law enforcement officials in the eradication of marijuana cultivated on public lands. It has been alleged that during the past 10 years, illegal growers in California have made the State a leading producer of domestic marijuana in the Nation. In Oregon the annual marijuana crop is estimated to be worth over \$400 million, with the Oregon State Police estimating that a significant portion of the marijuana in southwest Oregon is grown on BLM land. Other States having a relatively large marijuana industry on public lands are Washington, Arizona, Idaho, and Colorado. This illegal activity exists to some degree on BLM managed lands in all the Western States. A coordinated program that includes detection, employee awareness, public awareness, and a law enforcement strategy has been developed. It is believed that a moderately sized detection and enforcement effort that depends largely on cooperative agreements with local law enforcement agencies, together with an effective public information program, will go a long way towards minimizing the present problem and curtailing the growth of marijuana on the public lands in the future.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	1,553	2,022	2,036

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	1,412	1,933	2,036
Work Years	26	32	25

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
Cooperative agreements	52	37	46
Cases reported (estimated)...	653	650	650

E.2. CADASTRAL SURVEY

a) Program Description

Original cadastral surveys mark and define the legal boundaries of a tract of public land by establishing monuments or corner marks on the ground and recording their location in field notes and plats. These surveys serve as the basis for patents and other documents used for conveyance of public lands out of Federal ownership and for overall administration and management of lands retained in Federal ownership. Also included in the Public Land Survey System (PLSS) are Federal boundaries on the Outer Continental Shelf. BLM acquired responsibility for the administration and execution of cadastral surveys when the General Land Office was merged with the Grazing Service to form BLM in 1946.

Legally defensible boundaries are essential for identification of ownership so that the management of the public lands can proceed. Legal property descriptions are required for public land transfers, energy development, easement acquisition, timber sales, and right-of-way grants.

Cadastral survey also resurveys those areas where markers have become lost or obliterated for the purpose of reestablishing the boundaries between Federal, private, and state-owned land.

Cadastral survey information is depicted on a base through the use of cartography. The accurate portrayal of the PLSS land records and status on a geographically referenced base is of prime importance to land managers, both public and private. Many of the BLM mapping requirements are satisfied through cooperative efforts with other Federal agencies.

Much of cadastral survey's work in the Lower 48 States is performed on a reimbursable basis for other Federal agencies. BLM performs surveys and resurveys for the Forest Service, Bureau of Indian Affairs, National Park Service, the Bureau of Reclamation, U.S. Fish and Wildlife Service, the Department of Defense, and occasionally the Department of Justice. Unless approved by BLM, public land surveys do not carry the full weight of Federal law and do not become part of the public land records system. The Forest Service (FS) and the National Park Service (NPS) have each signed a Memorandum of Agreement with BLM that cites the conditions under which personnel of the FS and NPS can execute field surveys under BLM special instructions and subject to BLM's official approval.

Original survey work remains a major program element in Alaska, where 90 percent of all original survey work is now performed. The Alaska State-

hood Act of 1958 required the State to select 105 million acres of Federal lands within 25 years. The task of surveying those lands was compounded by the Alaska Native Claims Settlement Act of 1971 (ANCSA), which provided for a grant of 44 million acres of Federal land to the State's Eskimos, Indians, and Aleuts, as well as for the designation of additional acreage as national parks, wildlife refuges, national forests, and wild and scenic river areas. Before title to any of this land can be transferred to Natives or to State and Federal agencies, boundaries must be surveyed, private rights identified, and municipal boundaries and specialized sites defined.

This sudden increase in surveys needed in Alaska spurred BLM to find new survey technologies. The Auto-Surveyor, an inertial guidance system that can identify an in-flight aircraft's exact longitude and latitude position, continued to help meet these survey needs. The continued use of contractors to perform large-scale original surveys also assisted with Alaska survey needs.

b) Progress Report

BLM has surveyed on the ground roughly 80.1 million or 53 percent of the 149 million acres of boundary survey work in Alaska required under the Alaska Statehood Act and the Alaska Native Claims Settlement Act prior to land transfers to the State and to Native groups. These boundary surveys require processing for final plat acceptance and do not complete the survey work needed to convey the lands to the Natives and the State. The internal surveys to identify private rights are still needed. In addition, 282.4 million acres remain unsurveyed in Alaska, including the millions of acres of surveys needed to identify boundaries of national parks, forests, wildlife refuges, and wild and scenic rivers created by the Alaska National Interest Lands Conservation Act. In addition, 15.9 million acres of land presently remaining under BLM jurisdiction have been surveyed.

New survey technology continues to be tested to reduce the cadastral survey program's enormous

backlog. Plans for FY 1984 include expanded use of the Auto-Surveyor system to observe direct field meanders of segregatable waters to be identified on the existing ground surveyed lands. This action, combined with the expanded program of photographic identification of water boundaries on similarly surveyed lands, will provide the additional data necessary to prepare final plats on approximately 2,200 townships now surveyed on the ground but unaccepted pending the determination of comprehensive meander-line data.

c) Issues

The backlog of unsurveyed public land is the primary issue in the cadastral survey program. Almost 300 million acres of public land have yet to be surveyed. It is estimated that it will take several years to complete these surveys.

d) Budget and Performance Analysis (Alaska Program)

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrator: State Director, Alaska

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	9,607	9,992	12,140

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	9,795	9,620	12,140
Work Years	158	161	170

Acres Required to be Surveyed	Through FY 1982	Estimate FY 1983	Remaining to be Surveyed	Planned for Completion by
ANCSA (44,000)	28,058	3,430	12,512	1990
State Sections (104,450)	45,846	88	58,516	2005
All Other (214,050)	41,929	0	172,121	2000+
Total (362,500)	115,833	3,518	243,149	-

e) Budget and Performance Analysis (Lower 48 States)

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: Director, Denver Service Center & State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	10,031	11,602	11,407

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	9,938	11,369	11,407
Work Years	304	348	330

4) Performance

Work Units	1982 Enacted	1983 Enacted	1984 Proposed
Cartography (number)	404	a-	-
Original Survey (miles)	85	a-	-
Resurveys (miles)	3,216	a-	-
Special Surveys (miles)	33	a-	-
Remonumentation (number)	395	a-	-

*Actual figures will not be available until FY 1984.

E.3. ENGINEERING

a) Program Description

The construction and maintenance programs construct and maintain facilities needed to provide services for visitors to the public lands. These programs also provide support to resource management of the public lands including all phases of new construction/planning, environmental analysis, survey, design, and contracting operations; and provide timely maintenance for BLM owned building, recreation, and transportation facilities. These broad responsibilities are relatively new.

When BLM was established in 1946, its physical facilities were inherited from its parent agencies, the General Land Office and the Grazing Service. Building space was provided by the General Serv-

ices Administration. A primitive road system on the public lands reflected the miscellaneous access needs of ranchers, mining companies, railroads, and county and state governments. In addition, many miles of somewhat less primitive road built by the Civilian Conservation Corps in the 1930's were inherited. Recreation facilities were nonexistent or at best, very primitive.

As its role in managing the public lands grew, BLM obtained facilities from other agencies, such as the Civilian Conservation Corps and the various States and counties. Investment in construction on the lands remained extremely modest, however, because BLM was still considered an interim custodian of the land pending ultimate disposition. New road construction was limited to those necessary for the development of timber resources in Oregon, California, Idaho, Colorado, Montana, and Wyoming. Building construction until 1963 was limited to firefighting facilities in Alaska.

In the 1960's, BLM's custodial role gave way to the concept of retention. The new policy was stated clearly in the Classification and Multiple Use Act of 1964 and in the legislation creating the Public Land Law Review Commission. During this same time, public use of BLM lands rocketed, especially recreational use. The existing primitive road system was inadequate for the heavy influx of a new kind of traffic--automobiles and recreational vehicles. In 1964, contract authority under the Public Lands Development Roads and Trails Appropriation empowered BLM to construct "roads or trails which the Secretary of the Interior determines are of primary importance for the development, protection, administration, and utilization of public lands and resources under his control." In 1978 this appropriation was dropped and replaced by a transportation construction portion in BLM's regular Construction and Maintenance Appropriation.

Recreation facilities, including sanitary facilities, picnic tables, fire rings, well-water supplies, and visitor service facilities also were constructed to accommodate some of the roughly 55 million annual visitors who camp, hike, picnic, hunt, fish, raft, rock-hound, or drive recreational vehicles on the public lands.

By 1967, BLM had begun to construct its own office buildings, warehouses, shops, and other facilities tailored to BLM's resource management responsibilities. Although BLM continues to obtain most of its building space from the General Services Administration, rapid growth and the shortage of facilities available for lease, especially in remote locations, often force BLM to construct its own. Specialized structures such as telecommunication buildings at remote locations, well pumping build-

ings, seed storage bins, greenhouses, and warehouses also are frequently built to order.

b) Progress Report

Maintenance was provided to 579 structures, including office buildings, warehouses, shops, storage buildings, fire stations, lookouts, and related facilities such as parking areas during FY 1983. Special emphasis has continued to be placed on corrective maintenance and retrofit for energy conservation. The maintenance program has emphasized the reduction of fuel consumption through such measures as the installation of storm windows and doors and the addition of insulation.

During FY 1983, BLM completed construction of one bridge and performed maintenance on approximately 8,750 miles of road, 215 miles of trail, and 10 bridges, emphasizing those that receive the greatest use and have the highest erosion potential if maintenance is deferred.

During 1983, BLM obtained an updated status report on the condition of its bridges and identified major maintenance and/or replacement needs.

Transportation construction, with the exception of timber access roads, has been at a low level pending completion of resource management plans and wilderness reviews. It is not anticipated that the completion of these plans will change the transportation construction and maintenance programs.

During FY 1983, phased construction continued on two recreation sites. BLM has identified other planned projects throughout the West and in Alaska, including visitor centers, sanitary facilities, cave protection work, campsites, and information stations. Recreation facility maintenance in FY 1983 involved minimal work at approximately 1,000 undeveloped sites (sites without water) and at 436 developed campsites containing varying numbers of individual sites. In addition, more than 180 hazards were removed or mitigated by such methods as filling abandoned mine shafts, removing dead trees, or barricading cliffs to improve visitor safety.

c) Issues

As BLM's program responsibilities expand to keep pace with public interest in and use of its lands, construction and maintenance become increasingly pressing concerns. Lack of office and storage space are often recurring problems. In spite of these problems, BLM increasingly emphasizes its maintenance responsibilities as the intensity of public use of its facilities increases.

Increasing use of BLM roads and trails results in erosion problems because few BLM roads were designed for present use levels or for passenger vehicles. Poor drainage control can result in a soil loss of as much as 100 tons per mile of poorly surfaced road each year, and many of these roads can be used only seasonally. Of the 64,000 miles of existing road, 20,000 are primitive and their primitive character can be hazardous to visitors accustomed to the highly developed roads in urban areas.

BLM constructs and maintains its transportation system to support its own resource management objectives, and does not construct public roads. However, as population pressures increase, so do demands for BLM to construct and maintain its roads to State and county road standards, or in other terms, to construct public roads. To meet such demands, the only option short of closing the road is to transfer some roads out of BLM authority to local public road authority.

Considering the need for recreation facilities (in 1978 it was estimated that existing facilities accommodated less than 15 percent of demand), BLM constructs and maintains a very modest number of functional facilities for use by the general public. Particular problems relating to high visitor use occur in the California Desert, along the Colorado River between California and Arizona, in caves in New Mexico, in the El Malpais areas of New Mexico, in the Little Sahara sand dunes in Utah, and on the upper Missouri River in Montana. Current plans are to pace new construction with the completion of resource management plans to ensure that BLM is fully prepared to deal with increased use.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: District Managers

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	--	989	936

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	--	987	936
Work Years	--	26	22

4) Performance

Work Units	1982 Actual	1983 Actual	1984 Planned
BUILDING			
Project Survey & Design (number)	2	1	0
Construction (number)	6	0	1 (Car- ryover)
RECREATION			
Project Survey & Design (number)	2	2	0
Construction (number)	2	2	1 (Car- ryover)
TRANSPORTATION			
Project Survey & Design....			
1)Bridges (number).....	3	0	0
2)Roads (miles)	0	0	0
Construction			
1)Bridges (number).....	2	1	0
2)Roads (miles)	35	0	0
BUILDING MAINTENANCE			
Buildings (number)	579	579	579
RECREATION			
Hazard Reduction (number)	180	180	180
Recreation Buildings (number)	1,436	1,436	1,436
TRANSPORTATION			
Roads (miles).....	8,750	8,750	10,500
Inventory (miles)	1,200	500	1,000

E.4. FIRE AND AVIATION MANAGEMENT

a) Program Description

The Fire Management Program shares with the rest of BLM the broad purpose of protecting and enhancing the resources of the public lands in order to preserve their capability to meet the resource needs of the Nation. More specifically, BLM is responsible for protecting property and natural resource values on the public lands from wildfire, rehabilitating areas damaged by wildfire, and ensuring that "prescribed burning" designed to accomplish a variety of resource management objectives is safely conducted and controlled.

BLM carries out these responsibilities on approximately 380 million acres, including some land administered by other Federal agencies, States, and private parties. It contracts with other Federal, State, and private agencies to protect roughly 6 million acres of this total. Approximately 170 million acres, or half the total, are in Alaska.

BLM has entered into cooperative agreements on fire suppression with other agencies, providing for

fire suppression resources to be shared by the BLM, National Park Service, U.S. Fish and Wildlife Service, Bureau of Indian Affairs, and Forest Service. States may also benefit from this arrangement where agreements have been negotiated.

The Boise Interagency Fire Center (BIFC) in Idaho is BLM's fire support center. It is the central location for Bureauwide fire training development, fire communications development, fire equipment overhaul, and the fire supply cache. BIFC coordinates project fire (large, complex fires) suppression activities throughout BLM lands in the 11 Western States and Alaska. During periods of extreme fire problem, BIFC assists other Federal fire fighting agencies.

Recent trends show an increase in the number of person-caused fires and a decrease in the acreage burned for two reasons. First, increased use of public lands has raised the incidence of fire, even though fire prevention programs have kept the rate of this increase lower than the rate of increased use. Second, in 1972 BLM modified its priorities from combating large "disaster" fires and improved both its initial attack capabilities and early fire detection systems. Consequently, most wildfires are now brought under control sooner and the acreage burned is less than in the past.

BLM's plans for carrying out its fire management responsibilities are contained in the Normal Fire Year Planning System developed for each BLM District. In the Normal Fire Year Plan, BLM categorizes all public lands into classes of fire problems. These fire problem classes are based upon historical data of fire occurrence, the value of resources threatened by fire and the estimated behavior of a fire. Operational plans for resolving the fire problem of each class are then developed, tested, and evaluated for effectiveness. The final force structure and equipment needs displayed in the plan become the basis for the annual budget. BLM's comprehensive Normal Fire Year Plan was updated completely in 1979.

As techniques for controlling fire have improved, all Federal agencies having wildfire suppression responsibilities have been able to adopt new procedures to use fire as a resource management tool. Prescribed burning is used to enhance wildlife habitat, improve range forage mixes, improve watersheds, improve the visual backdrop, and remove forest harvest residue, as well as many other applications.

Aviation management is a part of the fire management program and also provides BLM-wide guidance in aircraft use policy and procedures development, operational assistance, safety, and training. The aviation staff consists of an aviation manager

in the Washington Office, Division of Fire and Aviation Management and an aviation manager with one assistant located at BIFC for field operational guidance and assistance. Aviation activities are carried out under Federal Aviation Agency regulations and the policies established by the Office of Aircraft Services, Department of the Interior. Activities are coordinated with other agencies with like missions.

b) Progress Report

The 1983 fire season was below average in terms of number of fires and above the 5-year average in terms of acreage burned. In spite of the full implementation of the automatic lightning detection system and a continuing effort to upgrade the initial attack capability, weather patterns created a situation leading to larger than usual fire losses. A warm, wet spring creating a heavy grass cover and followed by a summer with a high number of dry lightning storms led to a larger than usual fire size. For example, one fire in Utah burned over 200,000 acres early in the summer, making it one of the largest fires to occur, outside of Alaska, in a number of years.

BLM's 1983 achievements were:

1) Phase I of the Initial Attack Management System (IAMS) nearly was completed during this year. This consisted of acquisition of the computer and graphic terminals. Additional fuels mapping and placing of the Remote Automatic Weather Stations (RAWS) continued during FY 1983--with additional mapping planned in FY 1984 and future out-years.

2) The Alaska Fire Service (AFS) completed its first full season of operation as the fire suppression agency for all Interior-managed lands in Alaska. Good success was achieved by AFS in initial attack on wildland fires. Out of 467 fires that were attacked by AFS forces, only 4 became project size. The other agency land managers feel they have an excellent relationship with the Alaska Fire Service.

3) The interest in the use of fire to achieve resource management objectives continues to increase, and is being translated into a larger number of acres being planned for prescription burns. Four years ago, 15,000 acres would have been considered as a large acreage for treatment by fire in a BLM State; in 1983 it is commonplace for individual district offices to plan to burn this many acres.

4) During 1983 BLM aviation management established Bureauwide standard operating procedures for accident/incident reporting, investigation, and followup system; user level training courses; and interagency aviation contract standardization. BLM appointed a National Aviation Management Com-

mittee to develop and field test new methods and procedures.

c) Issues

1) BLM is continuing to program and plan for fire suppression efforts with the Alaska Fire Service. Planned FY 1984 funds will maintain AFS in the upcoming fire season; future fire planning will assist in determining the extent of cooperative funding needs between the BLM, National Park Service, U.S. Fish and Wildlife Service, and Bureau of Indian Affairs.

2) BLM along with other land management bureaus and agencies uses the Department of Commerce "GOES" satellite (Geostationary Orbiting Earth Satellite) as a communications platform to transmit RAWS data. The shared cost of anticipated upgrading of the satellite capability and future use fee levels could become prohibitive for BLM. Present costs for this type of service could increase many times.

d) Budget and Performance Analysis (Fire Management)

The cost of suppressing major wildfires and subsequent rehabilitation work is traditionally reimbursed by the Congress in the following budget year.

1) Administrative Responsibility

Program Administrator: Assistant Director, Technical Services

Field Administrators: State Directors and District Managers

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	7,231	9,334	7,446

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	7,124	8,809	7,446
Work Years	153	149	145

4) Performance

	1982 Actual	1983 Actual	1984 Planned
Fire management plans (number)	6	6	6
Prescribed burns (number)....	80	85	150

Firefighting and Rehabilitation

5) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	*64,560	^b 49,750	4,750

*includes \$5 million payback from O&C

^bincludes \$4,750 appropriated and \$45,000 1983 fire season supplemental

6) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	58,090	46,487	4,750
Work Years	1,021	1,065	896

7) Performance

	1982 Actual	1983 Actual	1984 Planned
Number of Fires.....	1,887	1,964	N/A
Acres burned	278,015	835,208	N/A

E.5. GENERAL ADMINISTRATION

a) Program Description and Progress Report

General administration includes certain fixed costs such as rent and telephone, as well as executive direction and the following functions in Washington and at the Denver Service Center: personnel management, employee and visitor safety, administrative services, evaluation, and management research. Evaluations and audits are discussed in the following section, E.6.

1) Personnel and Training

During FY 1983, the Division of Personnel and Training concentrated much of its efforts in the support of the BLM-Minerals Management Service (MMS) Onshore merger. Activities related to position classification and placement issues were of

paramount concern. All efforts were carried out with the intent of adhering closely to Departmental guidance on merger objectives and to the principle of maximum protection of employees' rights and current grade and pay levels. Specific actions taken in this regard in FY 1983 were:

- Active participation in merger assistance teams which visited several States to assist in and evaluate merger-related efforts.
- Issuance of guidance to field offices pertaining to specific classification practices to be followed to ease the merger.
- Development of a multi-faceted priority placement plan designed to ease placement actions at all levels of BLM.
- Establishment of a centralized recruiting effort in DSC for Petroleum Engineering Technicians.
- Active participation in a functional stratification study of the Inspection and Enforcement program.
- Training of BLM field managers for managing complex minerals issues in a multiple use environment. Subjects covered included basic information needed for BLM management decisions, including minerals resource assessment, exploration, and development. In all, over 225 field managers were trained in three sessions of 2 weeks each.

The BLM also continued progress towards placing many multi-use management field positions in the GS-301 and GS-340 series. This was done in order to facilitate movement of individuals with a variety of backgrounds and disciplines into management jobs. The Division also worked with management in setting up new minerals related organizations in those areas with heavy energy and minerals program functions as part of the merger effort.

2) Employee and Visitor Safety

Reduction of accidental loss is vital to the accomplishment of BLM's mission and to its public service commitment. BLM management officials are committed to a dynamic occupational safety and health program for employees and to the safe enjoyment by the public of the Nation's public lands. Field offices during FY 1983 continued their occupational hygiene surveys and "job hazard analyses" to identify and abate environmental hazards and unsafe work practices. In FY 1983 the downward trend in accidents continued.

3) Administrative Services

Procurement, property and space management, printing, directives, and forms management fall under the responsibility of the Division of Administrative Services.

The support of public land management efforts requires 5.3 million square feet of improved real property. Of this, BLM has direct jurisdiction over 1.8 million square feet of space. BLM employs the open space concept of space arrangements wherever possible to improve space allocation and provide flexibility.

The FY 1983 merger of onshore program responsibilities from MMS with BLM required extensive work to accomplish office consolidation actions. BLM opened offices at three new geographical locations, initiated transfer to the BLM of 44 MMS space assignments, and submitted 28 requests for space to GSA for new or additional office space to accomplish the merger. Extensive work was also required to inventory and transfer to the BLM property system more than 5,000 items of onshore personal property, including 250 agency-owned motor vehicles. The total value of personal property assets transferred to BLM in the merger is more than \$6 million.

The BLM prepared an agency space reduction plan in response to a revision to 41 CFR 101-17 in March 1983. The objective was to achieve an overall office space utilization rate of 135 square feet per person in GSA-controlled space. BLM's space reduction plan proposed an average utilization rate of 164 square feet per person, taking into consideration the requirements for public rooms, central files area, land plat storage, etc. Interior's consolidated space reduction plan was submitted to GSA in June 1983, and conditional approval has been received from GSA.

A similar exercise covering BLM-owned or leased space was performed to comply with Executive Order 12411 and submitted to the Department on August 31, 1983. BLM's plan proposed an average utilization rate of 160 square feet per person, which includes an allowance for public areas, etc., as mentioned related to the GSA space reduction plan. Interior's consolidated agency-controlled space plan was submitted to GSA in September 1983.

Continuing efforts to reduce costs associated with BLM's fleet resulted in 104 fewer permanently assigned and owned vehicles in FY 1983 than were maintained for the same period in FY 1982, excluding the 250 vehicles acquired in the merger with MMS onshore operations. These acquisitions bring the total fleet to 5,042 units, which is 63 percent GSA-provided. These units were driven for 43.5 million miles in FY 1983. The reduced number of vehicles resulted in improved utilization of the fleet and savings of more than \$150,000 in vehicle depreciation or rental costs.

A 3-year effort to modernize and standarize the BLM's word processing network has culminated in

a contract award to Wang Laboratories, Inc. Prior to soliciting for bids, BLM undertook a nationwide study to assess word processing needs and evaluate the manner in which typing workload is handled. Through this study, equipment configurations were recommended to provide a cost justifiable level of word processing support. The results of this competitive award are expected to yield about \$500,000 in annual savings directly related to word processing. Beyond that, however, are less quantifiable savings related to the more sophisticated functions and performance that is now available, such as spread sheet analysis and list processing.

Coupled with this effort to standardize and modernize BLM's work processing network, BLM headquarters received approval from the Congressional Joint Committee on Printing to acquire an automated phototypesetter which will work in conjunction with our word processing network. Anticipated savings in printing and graphic arts costs are \$75,000 per annum.

As part of strengthening our Bureau forms management program, we have cancelled over 100 BLM forms in FY 1983. This is an increase of 70 percent over past years. Savings are approximately \$5,000 per year. In addition, only 32 new BLM forms were approved in FY 1983. In the past, BLM produced an average of 56 new forms per year.

An Automated Inventory Management System will be installed at our Denver Service Center. This system will allow for automated tracking of costs, and issues for BLM forms, publications, and other printed matter. We anticipate a savings of approximately \$30,000 to \$50,000 per annum through application of improved inventory management techniques.

During FY 1983, BLM spent \$58.3 million for goods and services. Even though BLM gained responsibilities for onshore minerals management, this figure has decreased from previous years because of the transfer of BLM offshore mineral functions to MMS. Formal contracts over \$10,000 awarded by the Washington Office, Denver Service Center, and Oregon State Office to support field programs totaled \$25.4 million. Field offices expended an additional \$32.9 million, mostly for small purchases.

In BLM's support of various socioeconomic programs, BLM has established aggressive goals and exceeded them all.

FY 1983 Goals and Achievements (\$ Millions)

	Goal	Actual Contract Awards
Minority Business Awards	\$ 3.2	\$ 3.5
Labor Surplus Area Setasides	4.5	9.6

FY 1983 Goals and Achievements (\$ Millions)—Continued

	Goal	Actual Contract Awards
Small Businesses.....	29.2	34.9
Women Business Enterprises.....	.9	1.3
Historically Black Colleges.....	.060	.065

BLM began development of a procurement planning system to track and monitor timely awards of procurements to avoid unnecessary fourth quarter obligations.

4) Management Research

The Division of Management Research analyzes and directs organization and management system changes and implementation. Organizational structures and management systems have been developed that provide for responsive decisionmaking at the field level. Many functions have been decentralized, and authority for organizational changes, personnel management, and appraisals has been delegated to the States. The Division of Management Research has provided guidance and assistance to both Headquarters Office and the field in development and implementation of the organizational structure and functional alignment resulting from the merger of onshore mineral operation functions into BLM.

b) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Assistant Director, Administration

Field Administrators: Delegations vary between different functions and within the same function so that a general identification of field level administrators is not possible.

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	77,180	75,865	81,302

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	76,832	75,700	81,302
Work Years	1,312	1,238	1,300

E.6 EVALUATIONS/AUDITS

The Bureau's Division of Program Evaluation in the Headquarters Office conducts internal evaluations of BLM programs, general management, and special issues. The U.S. General Accounting Office (GAO) and Interior's Office of the Inspector General (OIG) conduct audits of various BLM programs or functions.

A. Internal Bureau Evaluations

In FY 1983, the Division of Program Evaluation conducted three General Management Evaluations and one special evaluation. The Division also worked with individual States to help them develop their evaluation programs. The following lists the evaluations conducted in FY 1983 by the Division:

Arizona General Management Evaluation, March 1983

Oregon General Management Evaluation, April 1983

Idaho General Management Evaluation, June 1983

Bureauwide Merger Implementation Special Evaluation, September 1983

B. GAO Audits

The General Accounting Office issued 11 final reports in FY 1983 affecting the Bureau of Land Management. A list follows:

Interior's Report of Shut-In or Flaring Wells Unnecessary, But Oversight Should Continue (GAO/RCED-83-10) October 5, 1982

Interior's Program to Review Withdrawn Federal Lands--Limited Progress and Results (GAO-RCED-83-26) October 7, 1982

Public Rangeland Improvement--A Slow Costly Process in Need of Alternate Funding (GAO/RCED-83-23) October 14, 1982

Changes Are Needed to Improve the Management of the BLM's Financial Disclosure System (GAO/PFCD-83-16) October 18, 1982

Coal Exchange Management Continues to Need Attention (GAO/RCED-83-58) March 7, 1983

Costs and Uses of Remote Sensing Satellites (RCED-83-111) March 11, 1983

Opportunity to Increase Oil and Gas Exploration and Lease Rental Income (GAO/RCED-83-77) April 28, 1983

Analysis of the Powder River Basin Federal Coal Lease Sale: Economic Valuation Improvement and Legislative Changes Needed (GAO/RCED-83-119) May 11, 1983

Federal Civilian Agencies Can Better Manage Their Aircraft and Related Services (GAO/PLED-83-64) June 24, 1983

Information on Alaska Native Corporations (GAO/RCED-83-173) August 16, 1983

Compliance with the Department of the Interior's Cost Recovery Program Could Generate Substantial Additional Revenues (RCED-83-94) September 6, 1983

C. OIG Reports

Review of Inventory and Overtime Practices at the BIFC (W-LW-BLM-02-82) October 27, 1982

Review of Procurement Activities, BLM (C-LW-BLM-06-82) January 26, 1983

Review of Selected Aspects of the BLM's Financial Management System (C-LW-BLM-07-81) March 10, 1983

Review of Cash Collection at the Santa Fe State Office and the Las Cruces and Albuquerque District Offices, New Mexico State Office, BLM (C-MO-MOA-11-83E) April 22, 1983

Quarters Rental Program (W-LW-BLM-12-83) May 5, 1983

Review of Cash Collections and Imprest Funds at the Utah State Office, the Moab District Office, and the Grand Resource Area Office (C-MO-MOA-11-83J) June 28, 1983

E.7. DATA MANAGEMENT

a) Program Description

BLM initiated a study in 1974 to determine its data management requirements for resource and administrative programs. The resulting "Strategic Plan for Information Systems Management" is the principal BLM guide for developing data systems. It calls for a 7-to 12-year effort to improve data storage, manipulation, and analysis. In FY 1982 this plan was updated to identify current priorities and achieve cost efficiencies.

The plan calls for BLM data management capabilities to include: 1) a series of data banks to replace voluminous existing files; 2) easier access to data by headquarters and field offices; 3) capability for remote entry, update, and retrieval of data; 4) avail-

ability of textual, numeric, and graphic material in the format desired by the user; 5) land use and yield trend information; 6) word processing; 7) production of year-end and other periodic reports; and 8) the capability to process and analyze data to assist management in making better resource decisions.

FLPMA gave BLM a strong legislative mandate for comprehensive land use management, a mandate that was further underscored by the Public Rangelands Improvement Act in 1978. The more recent Paperwork Reduction Act of 1980 emphasizes sound use of automatic data processing in the Federal Government. To comply with these mandates and other national needs and respond to a rapidly growing need for analysis of large amounts of data, BLM is expanding its automated capability for gathering, storing, processing, and retrieving resource and other pertinent information. This program includes remote sensing, micrographics, and various aspects of telecommunications, as well as the traditional automatic data processing elements.

The computer systems being developed will support one or more of the program functions related to management of energy and minerals, lands, range, forestry, watershed, wildlife, recreation, cadastral survey, fire protection, roads and trails, access, transportation and rights-of-way, personnel, property, and financial systems. Under the concept advocated by the Commission on Federal Paperwork and being implemented by BLM, all information storage, manipulation, and retrieval capabilities are managed as an integrated set of activities.

The scientific systems program promotes the use of automated technology to reduce the time and workmonths required to collect, store, display, and analyze natural resource information. The program is responsible for:

- Interpreting environmental information obtained from space satellites to inventory vegetation, soil, and mineral resources on public land, and to monitor ground conditions over time.
- Developing automated geographic information systems to analyze the interaction of the many sets of data required for predictive modeling and identifying management opportunity in land use decisions.
- Demonstrating significant dollar, time, and work-month savings for BLM, and providing more efficient decisionmaking tools for management.

b) Progress Report

- 1) Automatic Data Processing

Emphasis in FY 1983 was directed towards improving ADP organization and guidance in BLM and continuing the normal operation and maintenance efforts to support Bureau programs.

Efforts continued to improve present and long term operations. An interagency agreement with the Department of Energy (DOE) was negotiated during FY 1983 to provide guidance and assistance to BLM for selected development projects. The present workload of the staff and the full load on the DPS-8 mainframe mandated obtaining this specialized technical assistance from DOE.

The BLM's on-line mining claim recordation system (MCR) is now on a pipeline basis. Over 1.6 million MCR cases have been entered into the automated system. Of the 1.6 million cases, 23 percent or 374,779 have been microfilmed. After microfilming, the MCR cases are disposed of in accordance with prescribed regulations (returned to climate or destroyed). This has resulted in space savings of 1,369 sq. ft. and a recurring savings of \$16,428.

2) Scientific Systems

BLM increasingly uses aerospace technology to help natural resource managers plan the most effective use of scarce management assets--personnel, time, and money. Data processing facilities now are nearing full capacity use. In FY 1983:

- BLM natural resource managers used information from Landsat imagery to inventory soil types and vegetation on about 40 million acres of public land in Arizona, Colorado, Idaho, Nevada, New Mexico, and Wyoming. This represents savings of more than eight cents an acre over traditional, labor-intensive ground inventories, and an increase of ten million acres over the amount of land inventoried in FY 1982 using Landsat.
- BLM resource protection staffs used automated techniques to compare time series Landsat digital data and identify variations in electromagnetic energy reflected from widely separated parcels of Federal mineral ownership. With this information, they monitored areas in Arkansas, Missouri, Illinois, and Ohio to guard against unauthorized removal of public resources.
- BLM fire management staffs used radiometry from NOAA weather satellites to identify wild-fire fuel types for the Automated Initial Attack System data base, and to monitor the quantities and curing of annual vegetation. Firefighters applied this information to predict ignition probabilities, fire intensities, and spread velocities in Oregon, Arizona, and Alaska.

c) Issues

Increased use of ADP and remote sensing techniques is necessary if the BLM is to meet local, State, and national needs. Technology-intensive rather than labor-intensive methods must be used to meet the increasing demands on the public lands, while reducing Government spending. Expanded use of such cost-effective tools needs to be recognized as a key challenge as well as an opportunity.

d) Budget and Performance Analysis

1) Administrative Responsibility

Program Administrator: Deputy Director for Services

Field Administrators: State Directors

2) Funding

	1982 Enacted	1983 Enacted	1984 Proposed
Appropriation (\$000s)	12,012	12,932	13,914

3) Program Obligations

	1982 Enacted	1983 Enacted	1984 Proposed
Dollars (\$000s)	11,690	12,209	13,914
Work Years	215	207	207

4) Performance

N/A

E.8 VOLUNTEERS AND OTHER CONTRIBUTED SERVICES

a) Program Description

In accord with FLPMA Section 307, which authorizes BLM to accept contributions of services, and in response to current public interest and public policy, the BLM expanded its use of the services of volunteer and other supplemental workers during FY 1983.

Policies and processes were adopted for recruiting and making effective use of contributed services--in cooperation with a diversity of local community service clubs, youth organizations, and outdoor activity interest groups, as well as individual citizen volunteers.

In addition to volunteers, the BLM's activities in this field include participation in the Student Conservation Program and the Senior Community Service Employment Program.

Most contributed services involve on-the-ground public land renewable resource projects such as improving fish and wildlife habitat, rangelands, forest lands, and watersheds; soil and water conservation; developing and maintaining trails, campgrounds, and other recreational resources; and protecting or restoring of archeological and historic sites. These workers also contribute their time, talents, and skills to assist with geology and mineral assessment, surveying, engineering, planning, public affairs, and administrative support.

Progress Report

During the year:

The BLM's basic operating policy in this field became more activist. It now calls for:

"managers of all units to actively take the initiative to seek out and recruit volunteers and other supplemental workers, and to utilize their services to the maximum extent feasible wherever a Bureau project, service or operation could thereby be accomplished, supplemented, complemented, enhanced or improved."

Further, rather than merely react to proposals initiated by prospective volunteers or others outside the BLM, the current policy directs managers "to identify in advance our priority needs for such services, by proposing and describing suitable projects prior to recruiting."

1) At BLM's invitation, four Federal land-managing agencies conducted the first national Volunteers Program Workshop in Colorado. The 120 participants from the National Park Service, Forest Service, and U.S. Fish and Wildlife Service--as well as BLM--exchanged ideas and experience on achieving such common objectives as:

Raising the level of professionalism in volunteers program management in natural resources agencies;

Improving cost-effectiveness of volunteer projects through such innovations as utilizing a volunteer as an area's volunteers program coordinator;

Using an area's volunteers projects to build mutually rewarding partnerships with public service civic groups and other citizen organizations in nearby communities; and

Integrating the "volunteer worker resource" into an area's basic natural resources management program from the beginning.

2) The BLM produced and distributed to field managers several relevant publications:

A recruiting brochure, *You're Invited to Make a Difference as a Volunteer for America's Public Lands*.

A guidebook, *Working with Volunteers: A Guide for Managers*. In addition, a more specialized guide for attracting and making good use of the services of geology students and other volunteers in geological and mineral assessment field work is being developed. This is envisaged as first of a set of aids for special applications of volunteers in public lands management.

A certificate acknowledging appreciation for "Volunteer Service for America's Public Lands."

3) Some 70 BLM field areas secured services of 230 college student "Resource Management Assistants" for 12-week paraprofessional work projects. The students worked under the guidance of BLM professionals in virtually all the natural resource disciplines. The students, who are not paid for their services, receive educational and career preparation benefits from their service with the BLM's Student Conservation Program, operated in cooperation with the Student Conservation Association, a nonprofit educational organization.

4) BLM field areas stepped up their use of the services of other volunteers, ranging from retired persons to high school students. In all, during FY 1983 more than 2,500 persons contributed more than 289,000 hours of service, which BLM field officials estimated resulted in work accomplishment worth about \$1,895,000, at a cost to the Government of about \$325,000 for supplies and guidance.

5) The Bureau explored, at the request of several state and local governments, possible cooperative arrangements whereby persons serving sentences in correctional systems or persons under court order for offenses could do useful work on the public lands as an alternative to confinement in jail.

6) In addition, during the year more BLM offices began to participate in the Senior Community Service Employment Program, under which low-income workers 55 years of age and above receive on-the-job training in the course of their half-time work with host agencies. By year's end, BLM offices in eight Western States were serving as hosts to 25 such older workers, in cooperation with sponsors including Green Thumb Inc., the American Association of Retired Persons, and several State agencies.

c) Issues

Legislation to supplement BLM's basic FLPMA-provided authority to accept voluntary services advanced in the Congress in 1983. Enactment would make it possible for BLM's field managers to reimburse their volunteer workers for certain of the out-of-pocket expenses that inevitably are involved in doing volunteer work. Provision of this authority would place BLM on equal footing with the other principal natural resource agencies, which have made good use of it for years.

It would enable more people with modest incomes--such as many students and retired persons--to serve as volunteers for the public lands. In an interim action pending enactment of this long-term legislation, the Congress provided in the Department of the Interior's FY 1984 appropriations act authority for BLM to provide for such expenses during FY 1984 on a case-by-case basis.

Funds to pay for such incidental expenses would be paid--as are all expenses of BLM's volunteers program--from regular appropriations available to the benefitting BLM areas and activities, such as range rehabilitation, wildlife habitat improvement, campground construction, or mineral assessment.

V. Appendix



V. APPENDIX

BLM Organizational Structure

The Bureau of Land Management was established July 16, 1946, through consolidation of the General Land Office (created in 1812) and the Grazing Service (formed in 1934) as set forth in the President's Reorganization Plan 3 of 1946. Since 1946, BLM has evolved into a decentralized, line and staff organization.

BLM Headquarters Office, in Washington, D.C., is headed by the Director and Associate Director. They are supported by three Deputy Directors who function as line officials and who, together with the Director and Associate Director, provide top-level executive leadership and management.

The Headquarters Office develops and translates executive, legislative, and judicial policy into specific sets of programs to pursue national goals on a consistent basis throughout BLM's field organization. It identifies policy and decision needs for the mid- and long-term future and supports Secretarial officials in coordinating BLM programs with those of other Federal, state, and local governments. The Headquarters Office also assures that program responsibilities delegated to other BLM units are being fulfilled according to established policies and procedures.

There are 12 State Offices, each headed by a State Director with line authority. These offices are the intermediate supervisory and administrative offices responsible for all land and resource programs within their geographic area of responsibility. Each BLM State Office administers a geographic area that generally conforms to State boundaries and consists of one or more States. The map included in this appendix shows the location of the State Offices.

These offices are responsible for planning, developing, and managing renewable and nonrenewable resource programs, and for maintaining relations with the public and with a variety of organizations. The acreage that western State Offices manage ranges from 7 million acres of public lands in Montana to about 150 million in Alaska. The Eastern States Office, headquartered in Alexandria, Virginia, manages approximately 60,000 acres in States that border on or are east of the Mississippi River and leases minerals on 24 million acres of Federal reserved mineral ownership.

At the local level, 55 District Offices develop and carry out resource management work programs. Each office has responsibility for a portion of the geographical area under the jurisdiction of the State Office. Districts are the basic field component of

BLM and are headed by a District Manager, who is a line official. In the lower 48 States, the largest District is the California Desert District with over 12 million acres. In Alaska, the Fairbanks District contains approximately 60 million acres. The smallest District is Tulsa, Oklahoma, which administers only 7,000 surface acres in the State of Oklahoma. The average size of a District in the lower 48 is about 3 million acres, or an area about the size of Connecticut. In Alaska, the Anchorage and Fairbanks District sizes are changing rapidly, due in large part to the Alaska National Interest Lands Conservation Act.

Districts are divided into Resource Areas. The line official for an Area Office is the Area Manager who has responsibility for day-to-day resource management activities and implementation of on-the-ground actions for use of the public lands.

Resource Areas in the lower 48 States range in size from 5.5 million acres in the Tonopah Resource Area of Nevada to other small Resource Areas, located in various States, ranging from 25,000 to 50,000 acres. By comparison, the Arctic Resource Area in Alaska administers approximately 27 million acres.

There are 154 Area Offices in BLM, many of them sharing office locations with District Offices. Fifty-six are detached Resource Area Headquarters in separate communities.

Two Field Offices provide special support to BLM: The Denver Service Center and the Boise Interagency Fire Center. The Denver Service Center provides consolidated administrative support to State and District Offices and, to some extent, to the Washington Office. It is also charged with gathering, storing, and retrieving natural resource data and adapting scientific and technological concepts to field use. The line official of the Service Center is a Director who reports to the BLM Director in Washington.

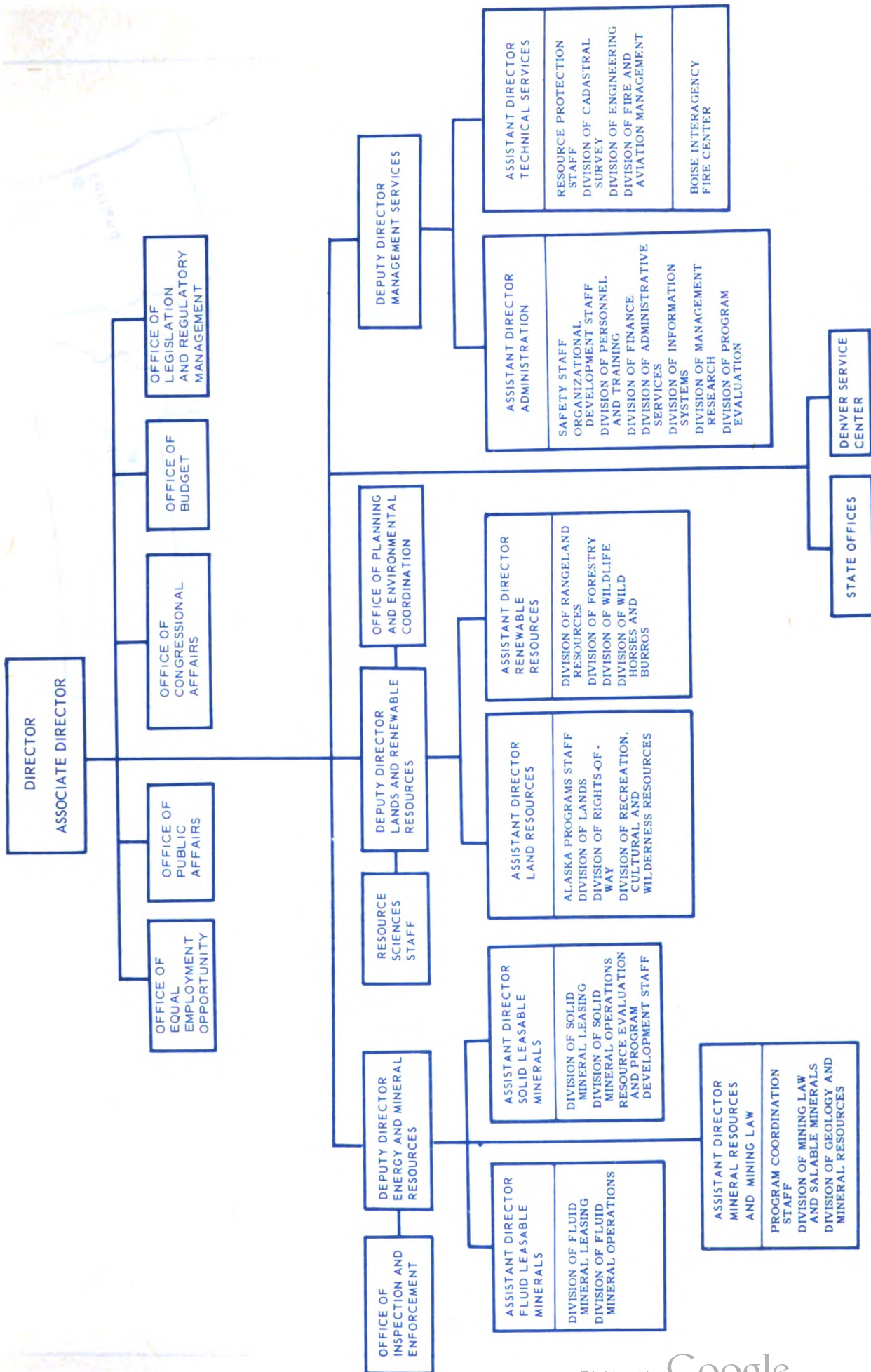
The mission of the Boise Interagency Fire Center (BIFC) is to pool interagency fire fighting resources and deploy them when wildfires get beyond the control of local BLM, Forest Service, Bureau of Indian Affairs, Fish and Wildlife Service, and National Park Service officials. The responsible BLM official is the BLM Director, BIFC, who reports to the Assistant Director, Technical Services in Washington. BIFC has a permanent work force which is supplemented by additional personnel as fire conditions dictate.

On December 3, 1982, the Secretary signed Order No. 3087 which transferred the majority of the On-shore Mineral functions from the Minerals Manage-

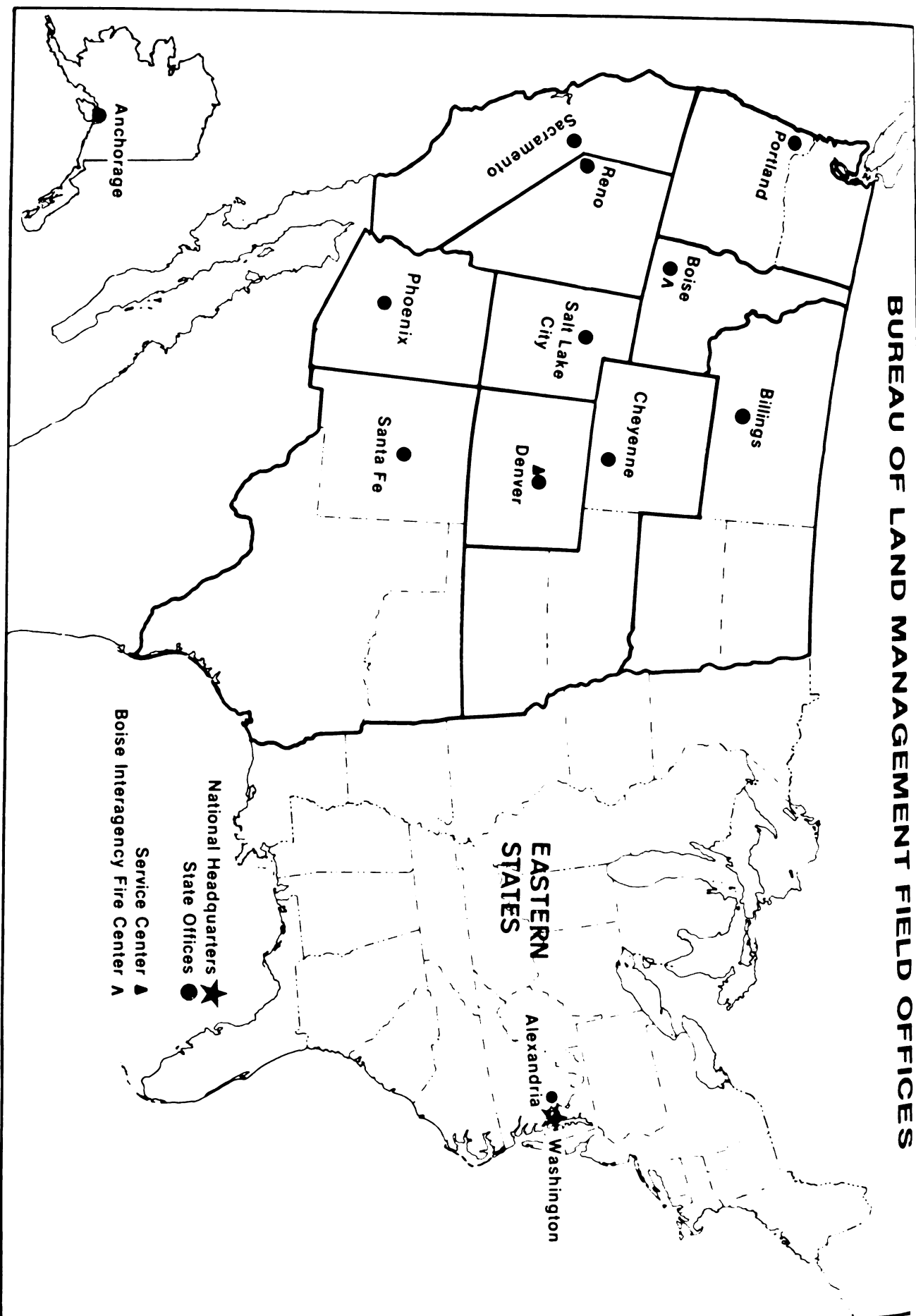
ment Service to BLM. This transfer of functions will increase BLM's efficiency and effectiveness and will provide greater opportunities for industry to deal with only one Government agency in the conduct of mineral leasing activities. Reorganization of the

BLM's Headquarters and field offices has been essentially completed with only minor adjustments to be made during the coming year to improve overall operations. The current organization chart for BLM is shown as part of this appendix.

BUREAU OF LAND MANAGEMENT



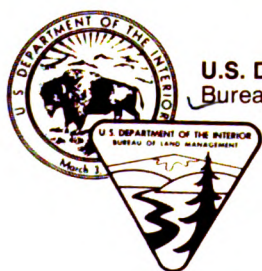
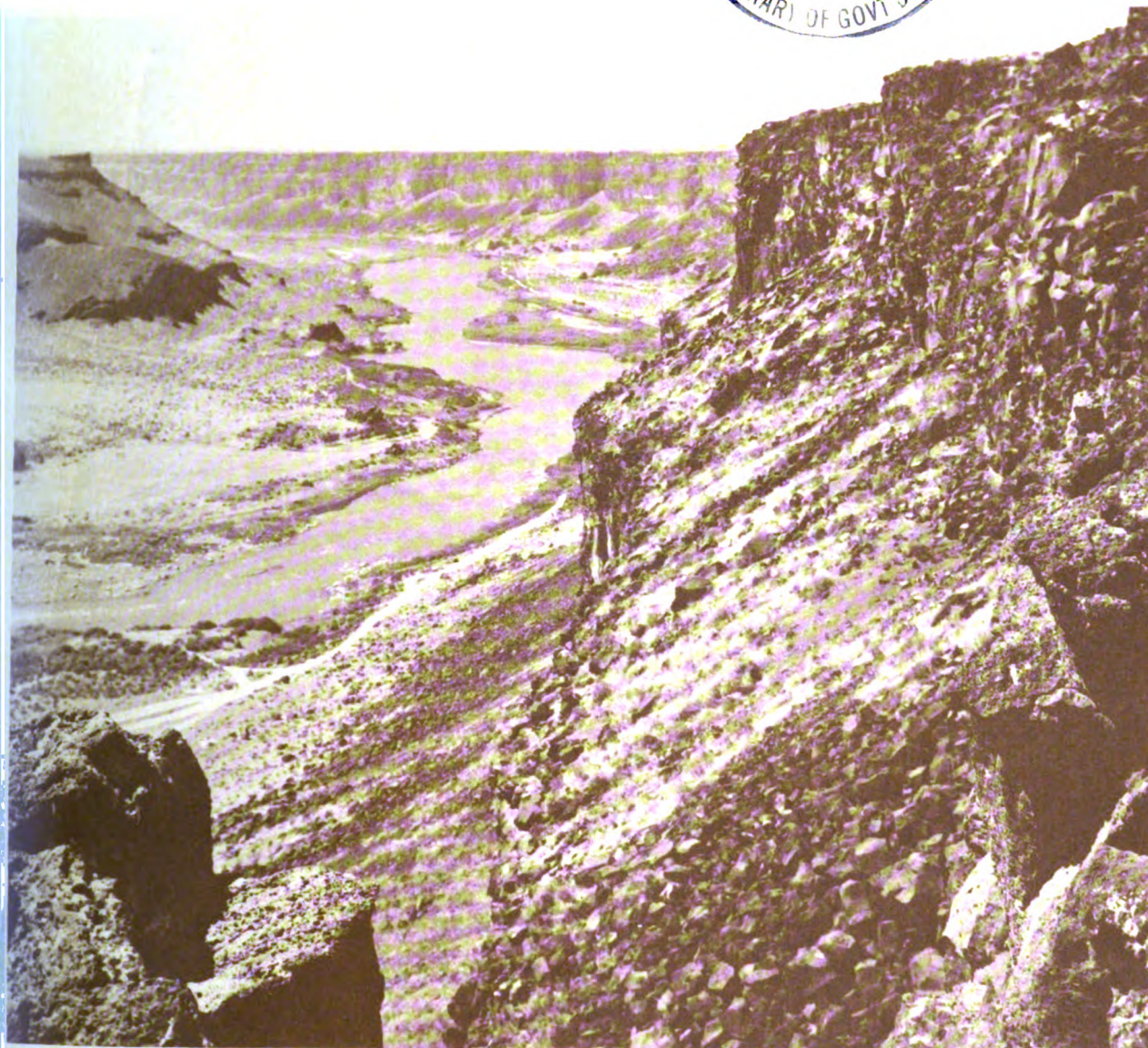
BUREAU OF LAND MANAGEMENT FIELD OFFICES





U.S. Department of the Interior. As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

Managing the Nation's Public Lands Fiscal Year 1984



U.S. Department of the Interior
Bureau of Land Management

Managing the Nation's Public Lands Fiscal Year 1984

This report to the Congress of the United States on the management of the Nation's public lands is submitted pursuant to requirements of the Federal Land Policy and Management Act of 1976 (FLPMA).

The report is for the period from October 1, 1983 to September 30, 1984.

**Managing the Nation's
Public Lands
Fiscal Year 1984**

Contents

I. Introduction	7
II. Fiscal Year 1984 Progress Report	11
A. Planning	11
B. Energy and Mineral Programs	12
Geology and Mineral Resources	12
Oil and Gas Management	13
Geothermal Management	15
Coal Management	16
Oil Shale/Tar Sand Management	17
Nonenergy Mineral Leasing	19
Mining Law Administration and Mineral Materials	20
Hazardous Materials Management	20
C. Land Programs	20
Lands	20
Alaska Lands	21
Rights-of-Way	22
Acquisitions	22
Withdrawal Review	23
Recreation Management	23
Natural History Resource Management	24
Cultural Resource Management	24
Wilderness Review	25
D. Renewable Resource Programs	28
Rangeland Management	28
Soil, Water, and Air Management	30
Forest Management	30
Wildlife Habitat Management	31
Wild Horse and Burro Management	32
E. Support Services	34
Law Enforcement	34
Cadastral Survey	35
Engineering	36
Fire and Aviation Management	37
General Administration	39
Evaluations/Audits	40
Information Resources Management	41
Volunteers and Other Contributed Services	41
III. Financial Management	45
A. Appropriations and Expenditures	45
B. Revenues and Receipts	49
C. State and Local Shares	50
Revenue Sharing	50
Payments in Lieu of Taxes	51
IV. A Look Ahead	53
Appendix	59
BLM's Organizational Structure	59



“... Congress declares that it is the policy of the United States that—

“the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use;

“the public lands be managed in a manner which recognizes the Nation’s need for domestic sources of minerals, food, timber, and fiber from the public lands...”

(FLPMA, Sec. 102 (a) (8) and (12))

With these words, the Federal Land Policy and Management Act of 1976 (FLPMA) outlined the vast responsibilities of the Bureau of Land Management (BLM), an agency of the U.S. Department of the Interior. About 300 million acres, or about one-eighth of the Nation, are managed by BLM under the principles of multiple use and sustained yield for the benefit of all Americans. The mineral estate underlying an additional 300 million acres of lands administered by other agencies or private interests also comes under BLM’s jurisdiction.

The public lands in the Western States, including Alaska, are some of America’s last wide-open spaces. National attention has turned to the rich resources of the public lands as the Nation seeks to meet its growing needs for energy, food, timber, minerals, water, wildlife, and recreation. This attention is long overdue and, not surprisingly, has generated increased interest over how to manage and use public land resources.

The facts cited below indicate that the stakes are high and continue to grow:

- Onshore public lands contain about 1.6 billion barrels of proven domestic oil reserves and about 12.7 trillion cubic feet of recoverable domestic natural gas reserves.
- More than 55 million acres of public lands are prospective sources of geothermal energy. In addition, approximately 2 million acres have been identified as known geothermal resource areas.
- Half of the Nation's coal reserves are in the West, and as much as 60 percent of that coal is owned by the Federal Government. BLM also administers substantial eastern coal reserves, the largest portion being in Alabama.
- Some 35 percent of the Nation's uranium reserves are found on public lands in the Wyoming basin and on the Colorado plateau.
- About 80 percent of the Nation's oil shale, the largest known reserve in the free world, lies under public lands, mostly in Colorado.
- The 11 major tar sand sites occur on public lands in Utah, and are estimated to contain almost 2 billion barrels of recoverable oil.
- The public lands contain an enormous storehouse of the Nation's nonenergy mineral deposits, including some world class deposits of molybdenum, phosphate, sodium, lead, zinc, and potash.
- About 21,000 livestock operators graze about 4.3 million head of domestic livestock on the public lands. Approximately 10 million animal unit months of forage are harvested from these lands each year.
- About 1.2 billion board feet of timber are harvested from BLM-managed Federal lands in an average year.
- The public made an estimated 56 million visits last year to hundreds of unique recreational areas on the public lands, including 13 Wild and Scenic Rivers, 21 National Trails, and 28 Outstanding Natural Areas.
- In 1984 Congress designated 328,000 acres of BLM lands as components of the National Wilderness Preservation System, bringing BLM totals in the system to 341,000 acres.
- BLM has the Nation's largest cultural resource management responsibility. More than 320 archaeological and historical sites already are listed on the

National Register of Historic Places, and 400 more are pending. Nearly 25,000 other sites or areas potentially are eligible for nomination, and inventories are identifying annually an additional 1,000 sites of possible cultural significance.

- BLM manages more wildlife habitat than any other Federal or State agency. The public lands are home to one out of every five of the big game animals in the entire United States, including most of the caribou, brown and grizzly bears, desert bighorn sheep, moose, mule deer, and antelope. BLM also manages 17 million acres of wetlands, 15.4 million acres of riparian habitat, 323,000 miles of perennial streams, and nearly 4.2 million surface acres of lakes and reservoirs. These lands contain more than 86,000 miles of streams that contain trout, salmon, and other sport fish.



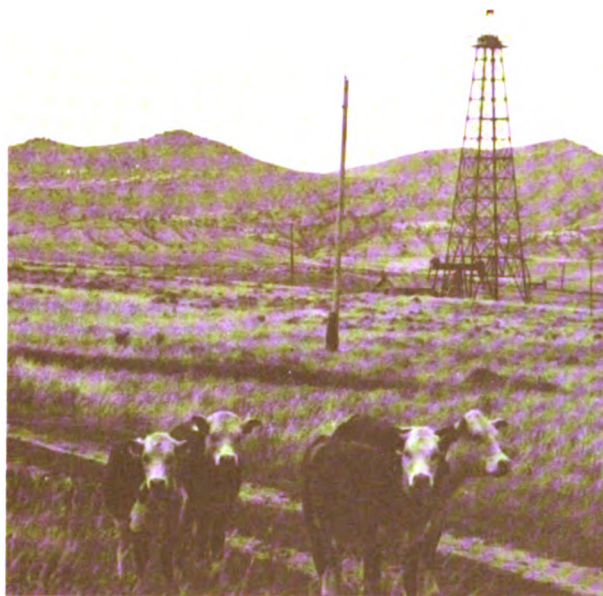
the magnitude and value of these resources, along with the high potential for conflicting demands and uses, make BLM issues some of the most pressing domestic resource policy issues facing the Nation. BLM is involved in many high-visibility issues: onshore oil and gas development, energy facility siting and transcontinental pipelines, coal development, renewables, nuclear and other hazardous waste disposal, timber production, the availability of water and land for urban development, the disappearance of the Nation's open spaces, and many others.

In addition to providing energy, food, mineral, timber, wildlife, and cultural resources, the public lands provide revenues to the Federal and State treasuries. An estimated \$215 billion was collected in Fiscal Year 1984 and turned over to the Federal Treasury, portions of which were distributed to State and local governments. These revenues were paid by users of the public lands in the form of grazing fees; energy and mineral lease sale receipts; filing fees, royalties, and rental payments; timber sale payments; recreation and firewood permit fees; etc.

Public land management is not simply a matter of administering a series of programs to address isolated problems and issues. This intricate combination of natural resources interlock in a system wherein change in the use of one almost invariably means change in another. BLM has developed and implemented a management system to meet its multiple mandate and to guide its decisions and actions. There are four key elements in this system:

- a planning and decisionmaking process that balances alternative uses, includes public participation, and directs BLM's implementation activities;
- implementation of land use plans, particularly by making on-the-ground improvements that increase productivity and resource values on the public lands;
- monitoring of resource conditions on the public lands to determine the effectiveness of a wide range of activities; and
- service, operations, and maintenance activities to meet the public's needs and to provide cost effective protection of existing investments.

BLM's management process is designed to resolve many of the conflicting demands placed upon the public lands and to facilitate development of needed resources while protecting other resource values from inadvertent damage or destruction.



I. Fiscal Year 1984 Progress Report

A. Planning

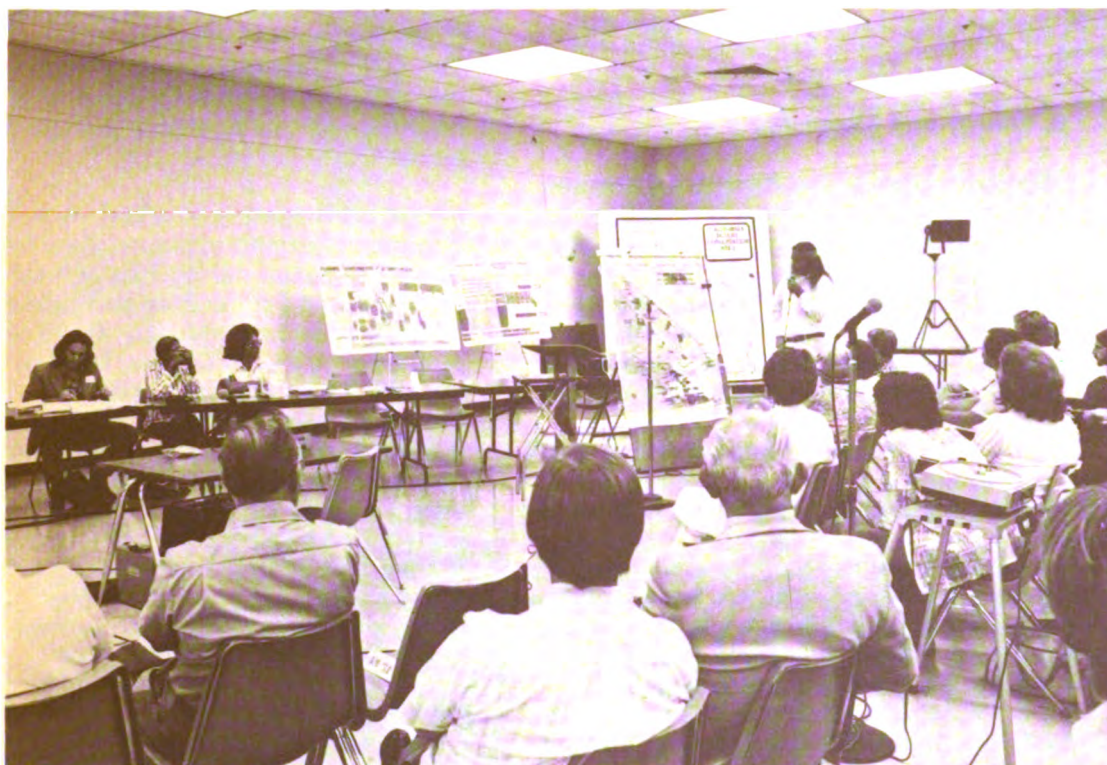
"The Secretary shall, with public involvement and consistent with the terms and conditions of this Act, develop, maintain, and when appropriate, revise land use plans which provide by tracts or areas for use of the public lands."

(FLPMA Sec. 202 (a))

With millions of acres to administer and a multitude of resources to manage, BLM faces a definite challenge in determining appropriate uses for each parcel of public land. A land use planning process that balances the needs

of the various resources, users, and the national interest facilitates decisionmaking. Public participation by local residents, public land users, State and local governments, and affected interest groups plays an important role in the interdisciplinary management of the public lands and their resources.

Resource Management Plans (RMP) form the framework for making decisions on the protection and management of critical areas and the allocation of resources among uses or levels of use.



Effective since 1979, the comprehensive Resource Management Planning regulations provide for an orderly transition from BLM's former planning system, Management Framework Plans (MFP). Maximum use is being made of the MFP amendment process to accelerate response time to new proposals, developments, or policies.

BLM Manual sections for Resource Management Planning were issued in April 1984 to assist field offices in implementing the regulations efficiently and effectively. In Fiscal Year 1984, 11 new RMP's were completed, along with the last 3 MFP's. In addition, 25 MFP amendments were prepared to analyze specific issues where a complete update of the existing planning base was not required.

A comprehensive Communications/Training Program was launched in 1982 with the issuance of a Reference Guide to Pilot RMP Experiences. The guide was updated upon completion of the Pilot RMP's during Fiscal Year 1984 and will be reissued in final form in Fiscal Year 1985. Three sessions of the RMP Short Course were conducted at BLM's Phoenix Training Center, and a new course in "Using the Plan" will be added next year.

A Task Force on Social and Economic Analysis was convened during the year, and 18 issues were identified and ranked. Needs for guidance in social and economic analysis and socioeconomic mitigation were among the higher priority items recommended for action.

B. Energy and Minerals

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That deposits of coal, phosphate, sodium, oil, oil shale, or gas, and lands containing such deposits owned by the United States . . . shall be subject to disposition in the form and manner provided by this Act. . ."

(Mineral Leasing Act of 1920)

Geology and Mineral Resources

BLM has taken several steps towards meeting its new responsibilities acquired following the Interior Department's 1983 realignment of minerals management functions. To assure integrity of the oil and gas leasing program, BLM fully implemented existing classification standards and initiated an accelerated review of all producing areas to determine which

lands should be leased competitively as Known Geologic Structures (KGS). BLM also has developed new standards for classifying lands valuable for other minerals.

Once the new criteria are adopted, Federal mineral lands will need to be evaluated for their mineral character. To carry out this task, BLM has greatly expanded its technical training programs for geologists and mineral specialists in the areas of land classification and evaluation.

During Fiscal Year 1984, 4.645 million acres were added to KGS lands, bringing the national total to 28.901 million acres classified for competitive oil and gas leasing. Classification actions involving Federal geothermal lands resulted in the addition of 84,165 acres to Known Geothermal Resource Areas (KGRA) and the deletion of 70,193 acres from existing KGRA's, giving a net increase of 13,972 acres.

The Geology, Energy and Minerals (GEM) assessment program for wilderness study area (WSA) suitability determinations was completed during Fiscal Year 1984. While providing timely input of GEM resources information for more than 8 million acres of WSA's, BLM was able to save more than \$10 million that would have been needed for more extensive mineral surveys on these areas.

In Fiscal Year 1984, BLM developed standardized guidance to field geologists on the use of GEM assessments. As a result, the GEM assessment program now will provide the basic mineral resources input to BLM's resource management plans and to everyday multiple-use management decisions on public lands.

Public participation is a key element of BLM's minerals planning systems. As a follow-up to initiatives taken during Fiscal Year 1983, BLM has continued to receive and process nominations from private industry and from the public for Areas of Critical Mineral Potential (ACMP). This program seeks to identify certain withdrawn Federal lands having mineral development potential and to evaluate the possibility of opening these areas to mineral entry. To date BLM has received 113 ACMP nominations involving 340 mineral occurrences and is negotiating with the various Federal agencies that administer surface use of the public lands to remove unnecessary mineral use restrictions.

During Fiscal Year 1984, BLM continued its program of hydrologic technical investigations in support of the Federal coal leasing pro-

gram. In May 1984, BLM formed a hydrologic technical investigations task force to evaluate the effectiveness of past activity and to define the future role of these studies in the coal planning process. The task force has completed a draft report and expects to submit its final report by the end of December 1984.

Oil and Gas Management

The Mineral Leasing Act gives BLM responsibility for oil and gas leasing on about 600 million acres of public lands and national forests, acquired land, and private land where mineral rights have been retained by the Federal Government. Both competitive and noncompetitive oil and gas leasing are covered in the Act.

During Fiscal Year 1984, an approximate total of 7,500 leases covering 10.6 million acres were issued, including 900 leases covering 400,000 acres issued by competitive bidding, 2,400 leases covering 4.7 million acres by over the counter leasing, and 4,300 leases covering 5.5 million acres issued under the simultaneous oil and gas leasing system.

The simultaneous oil and gas leasing program was suspended during Fiscal Year 1984 to allow a systematic re-evaluation of lands to determine whether they are within the limits of a known geological structure of a producing oil and gas field and thus should be leased competitively. During this suspension, BLM developed and implemented regulations published on June 29, 1984, requiring submission of the first year's rental at the time of filing for a lease. This rulemaking was designed to enhance the ability of the leasing program to encourage exploration and production from the public lands.

During Fiscal Year 1984, it became apparent that some filing service companies had embarked on an aggressive sales campaign wherein they would acquire large leases and subdivide them into small parcels for sale through assignments, thus dampening the possibility for exploration and development. As a result, actions to approve partial assignments involving small parcels were suspended for 5 months during the year. Permanent solutions to this problem are being considered.

The Kvichak and Goodnews Bay units in Alaska were scheduled to be opened in 1984 but were delayed in the planning process. Due to the Governor's objections to the Bristol Bay Cooperative Management Plan mandated by the Alaska National Interest Lands Conservation Act, BLM will prepare environmental assessments for these areas as an individual activity planning effort, rather than as part of the comprehensive plan. BLM did prepare and publish an environmental assessment on 3,154,214 acres in the Iditarod-George area during Fiscal Year 1984.

A Public Land Order was issued in May 1984 opening certain Trans-Alaska Pipeline Utility Corridor lands between Washington Creek and 7 miles north of the Yukon to State selection. The State immediately requested that all of the corridor lands be opened to State selection, delaying any future actions in the area until a decision is made concerning the proposal.

All competitive leasing action in the Cook Inlet and Cape Lisburne areas has been delayed because much of the land has been selected by the State of Alaska and Native Corporations. The Gulf of Alaska Province is largely under Forest Service management and is being studied in a programmatic environmental assessment on oil and gas leasing.



A fourth competitive lease sale of lands included in the National Petroleum Reserve, Alaska was held in July 1984. No bids were received on the 64 tracts offered which contained 1.6 million acres.

Onshore Oil and Gas Order No. 1 became effective November 21, 1983, and was modified December 20, 1983. The order reduces application requirements and expedites case processing for approvals of drilling and subsequent operations on onshore Federal and Indian oil and gas leases.

On January 9, 1984, a Memorandum of Understanding was executed between BLM and the Minerals Management Service to standardize their working relationship and to improve accountability on onshore Federal and Indian oil and gas (and other mineral) leases. In June, BLM and the Forest Service signed a Memorandum of Understanding that delineates responsibilities of the two agencies and gives the Forest Service a major role in pre-lease activities, including preparation of environmental assessments, leading to oil and gas leasing decisions on lands administered by the Forest Service. This arrangement will result in a single, comprehensive document for use by both agencies in guiding leasing decisions.

As of January 1, 1984, an estimated 148,466 oil and gas leases were supervised by BLM on Federal and Indian lands, of which 19,336 were producible. Approximately 20 percent of the producible leases and 10 percent of the total leases are on Indian lands.

During Fiscal Year 1984, approximately 2,000 operators were engaged actively in producing oil and gas from onshore Federal and Indian leases located in 26 States. A total of 4,479 applications for permit to drill were filed for oil and gas wells, and 4,231 were processed. Current statistics indicate that over 2,000 new oil and gas wells were completed for production on Federal and Indian lands.

As of June 30, 1984, there were approximately 22,000 oil completions and 17,000 gas completions on Federal lands, and about 4,900 oil completions and 3,200 gas completions on Indian lands for a grand total of approximately 47,100 producible completions plus another 7,100 service wells for which BLM is responsible.

The Office of Inspection and Enforcement (OIE) revised and expanded the nationwide inspection and enforcement strategy for oil and gas activities to assure that:

- lessees comply with applicable regulations and lease terms;
- production is properly handled and reported by lessees and verified by BLM;
- natural resources and the environment are protected;
- wells and operational sites are, when no longer needed, properly abandoned; and
- equipment and procedures are in place to protect public health, safety, and property.

OIE monitored inspection and enforcement activities for uniformity and consistency by Quality Assistance Team (QAT) visits to ensure that field offices are fully implementing all directives, taking consistent and firm enforcement actions when violations exist, and providing necessary training, guidelines, and equipment. During Fiscal Year 1984, 7 QAT visits of 2 weeks duration each were made in 11 Districts in 7 major oil and gas producing States. QAT teams comprised of technical personnel and analysts provide procedural review and on-the-job training to inspectors and managers in field offices.

BLM's allocation of inspector positions was increased from 102 to 122 to expand the number of annual inspections and take necessary enforcement actions. Site security was improved by using site facility diagrams required by new regulations, and instituting the use of Federal seals on pipeline and storage tank valves to assure accountability when lessees are found to be lax in compliance.

A major analysis of alternatives for ensuring the maximum use of all available Bureau resources in support of the Inspection and Enforcement program was undertaken. Several initiatives were begun to improve the skills of field managers, clarify management relationships, and increase the level of on-site lease surveillance through the cross-utilization of trained surface protection personnel.

keeping with the requirements of the Federal Oil and Gas Royalty Management Act, 1) new oil and gas inspectors were trained in techniques and procedures for inspecting production facilities and drilling operations. The curriculum was improved to meet the needs of new inspectors, and additional courses now are being developed to increase the knowledge and skills of experienced inspectors. Handbooks of inspection procedures for drilling activities and production operations are compiled to assist oil and gas inspectors.

Final regulations were published in the Federal Register on September 21, 1984, for enforcement of oil and gas laws, operating regulations, and lease terms by imposing new monetary penalties for noncompliance. Regulations provide for administrative assessments under the Mineral Leasing Act and civil penalties under both the Federal Oil and Gas Royalty Management Act and Mineral Leasing Act.

Development of the Onshore Oil and Gas Lease Inventory and Inspection System (known as MS-1) continued in Fiscal Year 1984. Use of MS-1 records has reduced inspectors' office time, thereby improving the

monitoring of field activities, and provided more data for review, analysis, and evaluation. When MS-1 is implemented completely, comprehensive oversight of the inspection and enforcement program will be enhanced and separate monthly reports from field offices will be eliminated.

Geothermal Management

"... the Secretary of the Interior may issue leases for the development and utilization of geothermal steam and associated geothermal resources. . ."
(Geothermal Steam Act of 1970, Sec. 3)

The Geothermal Steam Act of 1970 provided BLM authority to issue leases on public, withdrawn, and acquired lands administered by the Departments of the Interior and Agriculture. During Fiscal Year 1984, approximately 53,000 acres within known geothermal resource areas received high bonus bids of \$539,000. A total of 5.9 million acres have been leased for geothermal development since the program began in 1974. At the end of Fiscal Year 1984, 1,608 geothermal leases were in effect, of which 30 were capable of production and 12 actually were in production.



Coal Management

In the western United States, as much as 60 percent of the coal reserves are owned by the Federal Government. Major reserves are found in Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming. By the end of Fiscal Year 1984, a total of 631 coal leases were outstanding on Federal lands, covering 951,400 acres and containing an estimated 17.7 billion tons of recoverable reserves of coal.

Of these 631 leases, 237 were active and 331 leases were being monitored for conformance to the Federal Coal Leasing Amendments Act of 1976. In addition to the Federal coal leases, there were 6 inactive prospecting permits, 3 mining licenses (of which 2 were producing), 66 exploration licenses, 1 use permit, and 185 applications for the above.

The current Federal coal management program utilizes a sequential process, emphasizing land use planning, surface owner consultation, and activity planning for leasing. Continued substantial input from industry, other Federal agencies, State and local governments, and the public is an essential and integral element of the program.

Coal management also includes leasing by application within Federal coal regions under emergency conditions (e.g., where Federal coal would otherwise be bypassed) and outside Federal coal regions where regional competitive leasing is impractical.

Other aspects of the program include processing of pending preference right lease applications (PRLA's), processing coal exploration license applications, action on coal exchanges, and management of existing leases.

Through the lease by application component of the program, four lease sales were held and four new leases containing about 40 million tons of recoverable reserves were issued during the fiscal year. No preference right lease applications were processed to completion. Six previously rejected PRLA's were reinstated by the Interior Board of Land Appeals, increasing the total number of pending PRLA's from 131 to 137.

Final regional coal EIS's were filed with the Environmental Protection Agency for the Southern Appalachian-Alabama Subregion, San Juan River Region in New Mexico, and Uinta-Southwestern Utah Region. Additionally, draft EIS's for the Green River-Hams Fork and



Powder River Regions were completed and released for public comment. However, regional lease sales scheduled in Fiscal Year 1984 for these five regions were postponed pending action on program revisions directed by the Secretary as a result of two congressionally directed Federal coal program reviews.

The first of these reviews was initiated in August 1983, when the Secretary of the Interior appointed a Commission on Fair Market Value Policy (the Linowes Commission) pursuant to Public Law 95-63 to study the Federal coal management program and make recommendations to improve Interior's leasing procedures. In November 1983, Congress imposed a moratorium on coal lease sales until 90 days after the Commission published a report of its findings and recommendations. The Commission's report, *Fair Market Value Policy for Federal Coal Leasing*, was made available to Congress and the Secretary of the Interior in February 1984. It contained 36 recommendations and several judgments and conclusions.

a separate but related action, Congress directed a second review by the Office of Technology Assessment (OTA) to provide an assessment of the Federal coal program's ability to ensure the development of coal leases in an environmentally acceptable manner. The OTA's report, *Environmental Protection in the Federal Coal Leasing Program*, which contained 10 policy options for improving program effectiveness, was submitted to Congress and the Secretary in May 1984.

The Secretary has responded to both the Linowes Commission and the OTA reports *Review of Federal Coal Leasing* of March 19, 1984, and *Review of Planning Considerations Federal Coal Leasing* of July 19, 1984, respectively, accepting most of the recommendations and policy options. Through BLM, the Department is developing rules, procedures, and guidelines to implement 35 of the 36 Linowes Commission recommendations and the 10 OTA policy options. The Department expects to have in place a decisionmaking process that will allow consideration of regional coal leasing by mid-summer 1985 if Regional Coal Team recommendations advocating sales are forthcoming.

As part of the overall program review process, the Department on August 30, 1984, decided to prepare a supplement to the 1979 programmatic environmental impact statement (EIS) for Federal coal leasing. The EIS supplement will revisit the assumptions and projections described in the 1979 EIS and will consider several program and policy changes made since then, including those based on the Linowes Commission and the OTA reports. The final EIS supplement is scheduled for completion in July 1985. The Secretary then will reach a decision on whether or not to resume regional coal sales under the revised program or to select an alternative program.

In June 1983, BLM's Director decided that regional or areawide EIS's would be necessary for all pending preference right lease applications, excepting 43 PRLA's already included in adequately prepared environmental documents. Preparation of three areawide or regional EIS's covering 76 of 137 PRLA's was begun during the fiscal year. Completion of draft and final EIS's was delayed pending review of Departmental policy and procedures for determining commercial quantities and the identification and presentation of alternatives to the proposed action and alternative means for mitigating environmental impacts. Nevertheless, the Department remains optimistic that the majority of the remaining PRLA's can

be processed to a decision point (reject or issue lease) by the end of calendar year 1986.

Oil Shale/Tar Sand Management

BLM manages more than 80 percent of the estimated oil shale reserves in the 25,000-square mile Green River formation in northwestern Colorado, northwestern Utah, and southwestern Wyoming. The formation contains a total estimated potential of almost 2 trillion barrels of shale oil, of which an estimated 731 billion barrels are commercially developable.

In 1974, BLM issued four oil shale leases—two in Utah and two in Colorado—as part of the Department's Oil Shale Prototype Leasing Program. Objectives of this program were to issue a limited number of leases to stimulate development of commercial oil shale technology by private industry; and to develop the environmental safeguards, management expertise, and government supervision necessary in a future oil shale industry.

Initial phase development of the two Colorado prototype leases (C-a and C-b) has occurred. The first test retort on C-a was ignited in 1980 and recently shut down. Loss of water pressure in the retort is under investigation. C-b currently is under approved suspension. The operators have submitted a revised detailed development plan for Departmental review and are waiting to see if the letter of intent for loan and price guarantees issued to C-b by the United States Synthetic Fuels Corporation will be honored. Continued funding of the Corporation has been approved for Fiscal Year 1985. An overall operating budget of \$11 billion has been approved; however, letters of intent are being held up until an operating Board of Directors has been confirmed by Congress.

A detailed development plan for the newly combined Utah tracts was approved in March 1982. The Utah operations currently are under suspension awaiting release of the Union Oil Company shale technology process they intend to use.

In continued support of the permanent oil shale program, BLM is preparing EIS's and resource management plans (RMP's) in the oil shale areas of Colorado and Utah. These plans, to be completed in Fiscal Year 1985, will identify multiple uses of the Federal resources within the planning boundaries. Among the identified multiple uses will be priority management areas for oil shale development. Oil shale leasing activities

(other than the initial prototype leases) could begin as necessary after completion of these RMP's. Wyoming RMP's in oil shale areas are scheduled for completion in Fiscal Year 1987.

In addition to long term resource management planning, BLM has undertaken the preparation of proposed regulations to manage long term oil shale leasing. These regulations, which have undergone extensive public review, were delayed pending the outcome of a comprehensive oil shale bill that was introduced into Congress in August 1984, but now are in final preparation.

Several industry applications for exchanges for Federal lands to support ancillary facilities for private oil shale projects are pending. BLM is now preparing several EIS's regarding this development.

About 70 percent of the Nation's tar sand deposits are estimated to be in Utah, principally on Federal lands. Current estimates are that 2 billion barrels are deemed recoverable with today's technology. Approximately 100 to 200 million barrels can be recovered by surface mining; the rest probably will require some form of in-situ techniques.

Final rules governing the conversion of oil and gas leases and valid claims to new com-

bined hydrocarbon leases under the Combined Hydrocarbon Leasing Act of 1981 were issued during Fiscal Year 1982. Since then, 42 applications for conversion have been filed, covering 200 leases and 233,393 acres of Federal land. Nine of these applications proposed to develop the resource using surface mining techniques. The remainder proposed some form of in-situ extraction; either steam floods or fire floods. Applications have been received in 9 of the 11 Special Tar Sand Areas.

The Act requires that the applications demonstrate "reasonable protection of the environment." To assess this criterion, four EIS's and six environmental assessments were initiated by BLM and one environmental assessment was initiated by the Forest Service during Fiscal Year 1984.

Regulations governing the competitive leasing of combined hydrocarbons were issued in final and nominations for new leasing tracts were received during Fiscal Year 1983. During Fiscal Year 1984, land use planning amendments were prepared in three BLM Districts (a fourth recently had updated its plans) to accommodate tar sand development.

The potential environmental impacts of these planning amendments were analyzed in a



regional EIS, which also analyzed the cumulative impact of tar sand development throughout Utah resulting from all sources: new leasing, conversions, and private lands. As a result of this exercise, 18 potential lease tracts were identified. The final EIS was issued towards the end of the fiscal year and a decision on which tracts, if any, to offer will be made early in Fiscal Year 1985.

Planning in one other BLM Resource Area that contains significant amounts of tar sand, Utah's Book Cliffs, is being conducted through the new RMP process. A draft RMP, including areas where tar sand development will be a priority use, was issued for that area during Fiscal Year 1984.

BLM also has the responsibility for supervising development operations on oil shale and tar sand leases. These responsibilities include engineering, environmental and economic studies of operations on the existing oil shale leases and combined hydrocarbon leases, as required by the lease terms, and inspection of all operations on leased lands to ensure that requirements for conservation of resources and environmental standards are met.

Nonenergy Mineral Leasing

Public lands are an important source of several nonenergy minerals; e.g., sodium, phosphate, potassium, lead, and zinc. On May 25, 1984, revisions to the mineral leasing regulations (43 CFR 3500) became effective after a long term, comprehensive analysis of public comments on the 1982 draft version. The revisions included provisions that streamlined the processing of prospecting permits and lease applications, defined "valuable deposit" and "chiefly valuable" among other terms, and added new provisions for exploration and development of hardrock minerals.

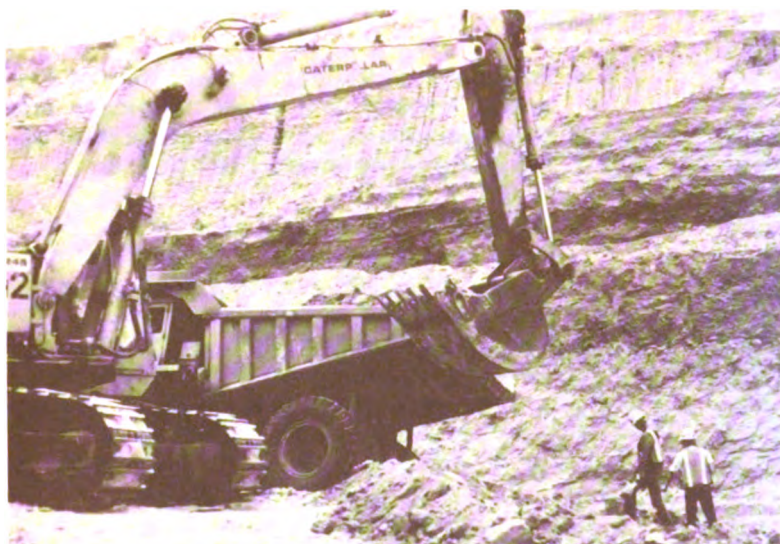
The beginning of Fiscal Year 1983 found BLM with an excessive workload of more than 2,200 cases on file. By the end of Fiscal Year 1984, a concerted, diligent effort by BLM's adjudication staff resulted in a reduction to approximately 350 cases.

Additionally, a total revision of the 43 CFR 3500 regulations has been under way to change the existing complex format to one that addresses each leasable mineral under separate headings. The mineral-specific format will complete the task started in 1983 of clarifying and streamlining the mineral leasing regulations. Final revisions are expected to become effective in late 1985.

The majority of the nonenergy mineral leases include copper, lead, zinc, phosphate, potash, sodium, and sand and gravel. Of these minerals, there were 104 producing nonenergy mineral leases, 95 active mine work leases, 19 exploration leases, and 12 development leases for BLM to monitor in Fiscal Year 1984. A few leases for other minerals, including iron ore, molybdenum, barite, quartz, feldspar, fluorspar, and wavellite, among others, also exist. Table A summarizes the significant nonenergy mineral leases.

TABLE A
NONENERGY MINERAL LEASES
ADMINISTERED BY BLM
as of September 30, 1984

Mineral	Pro- ducing	Active Mine Works	Exploration	Development
Copper	3	—	—	—
Lead/Zinc	10	1	—	3
Phosphate	11	4	4	8
Potash	55	82	1	—
Sodium	15	8	3	1
Sand & Gravel	10	—	11	—
Totals	104	95	19	12



Mining Law Administration and Mineral Materials

As a result of the June 1983 Supreme Court ruling declaring sand and gravel minerals reserved to the Federal Government under the Stock Raising Homestead Act, BLM distributed final procedures in Fiscal Year 1984 to resolve related unauthorized use cases. Unless previously notified, only those parties removing sand and gravel from SRHA lands after July 21, 1983, will be required to compensate the Federal Government for the unauthorized removal of sand and gravel.

Efforts to reduce the number of pending mineral patent applications resulted in the issuance of 65 mineral patents covering 8,690 acres during Fiscal Year 1984. This reduced the number of pending mineral patent applications from the Fiscal Year 1982 level of 412 to 291 at the close of Fiscal Year 1984.

Since 1976, BLM has recorded approximately 1.7 million mining claims, of which approximately 1.1 million are still active. During Fiscal Year 1984 BLM processed 1,007,944 instruments dealing with the recordation of mining claims. BLM receives an average of 140,000 new claims each year.

Hazardous Materials Management

Hazardous materials management is a program that touches most other BLM programs, including lands; minerals; forestry; range; soil, water, and air; as well as engineering and resource protection. The goals of the program include:

- Protection of the health and safety of the public, Federal land users, neighbors, and BLM employees, as well as protection of the environment and natural resources.
- Compliance with applicable Federal and State laws, rules, orders, etc., within the context of BLM's statutory mission as a Federal natural resource manager.
- Cleaning up past problems, controlling current problems, and minimizing future problems of hazardous materials on public lands in a cost-effective manner.

Significant accomplishments in Fiscal Year 1984 include issuance of instructions to field offices on safety, site reporting requirements, permit certification, and other hazardous materials related procedures. Field offices identified many potentially hazardous sites that may be on public lands. A total of 173 sites were identified in this manner.

Cleanup/control or other disposition schedules for many of the known sites were established on a priority basis. In Southern California, an aerial survey was initiated to identify potential hazardous material sites. Approximately 21 million acres eventually were surveyed by this means. Bureau field office staffs also responded to numerous hazardous materials spills and illegal dumping situations, mostly in California.

C. Land Programs

"The Congress declares that it is the policy of the United States that . . . the public lands be retained in Federal ownership, unless as a result of the land use planning procedure provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest."

(FLPMA, Sec. 102 (a) (1))

During Fiscal Year 1984, BLM's Lands Program focused on:

- responding to State and local government requests for acquisition or use of public land for community expansion and recreation or public purpose activities;
- modifying land exchange processing to eliminate unnecessary requirements and streamline procedures;
- accelerating programs of State and private land exchanges to foster improved and more efficient management of the public lands;
- transferring Federal land to States to satisfy State indemnity (in-lieu) land entitlements that remained outstanding; and
- producing regulations to clarify and simplify land sale procedures.

the Recreation and Public Purposes (R&PP) Act authorizes the Federal Government to lease or sell public lands at less than full fair market value to State and local governments and nonprofit groups for recreation and public purpose needs. In Fiscal Year 1984, BLM processed 288 R&PP applications involving 1,443 acres of public land. Applications continue to be filed at a rate of approximately 80 per year.

Land exchanges, i.e., exchanging public land for State and private land, provide opportunities to simplify ownership patterns and improve respective management programs, meeting both public and private needs. In 1981, 70,578 acres were conveyed through exchange. In 1982, that figure climbed to 95,424 acres, and in 1983, to 134,079 acres. In 1984, 17 exchanges conveyed 439,000 acres of public lands to States and private interests in return for 480,000 acres of their lands. The acreage total represents about a 270 percent increase over that exchanged during Fiscal Year 1983.

As Western States were admitted to the Union, they were granted Federal land for a variety of purposes. In many cases, however, and due the States had been preempted by settlement, mining claims, and Federal programs. Accordingly, Congress authorized the States to make indemnity, or in-lieu, selections for the land "lost." Conveyance of such in-lieu land to the Western States has been accelerated rapidly. Between 1977 and 1980, only 3,859 acres were transferred. This increased to 58,825 acres in 1981 alone, 80,281 in 1982, and more than doubled to 185,228 acres in 1983. With much of the work accomplished, 1984 transfers dropped to 30,552 acres. BLM expects to essentially complete entitlement work during Fiscal Year 1985.

Processing of Desert Land Act applications continued as a major workload in the States of Idaho and Nevada during Fiscal Year 1984. BLM processed more than 935 applications during the year, reducing to 1,740 a backlog that once involved more than 6,000 cases.

BLM continued to make selected public lands available for sale to allow for community expansion and other purposes. Most of the lands sold consisted of small, isolated parcels. Tracts are carefully selected through BLM's land use planning process to ensure that sale is appropriate. During Fiscal Year 1984, 19,500 acres of public lands were sold for a total of more than \$13 million. Of this total, 406 acres were sold under provisions of the Burton-Santini Act for \$7.2 million. Of the



total acreage sold, 17,609 acres actually were patented during Fiscal Year 1984.

Alaska Lands

The Alaska Lands Program was established to implement the Alaska Statehood Act, ratified on January 3, 1959, and the Alaska Native Claims Settlement Act of December 18, 1971, as amended (ANCSA). The Alaska Statehood Act granted to the State approximately 104.5 million acres, while ANCSA granted Alaska Native corporations 44 million acres of land. Conveyance of lands selected under these authorities is Alaska BLM's top priority.



As provided by the Alaska National Interest Lands Conservation Act of 1980 (Alaska Lands Act), the State can select lands until January 1, 1984. During Fiscal Year 1984, BLM conveyed more than 4.0 million acres to the State, bringing the total conveyed as of September 30, 1984, to 80 million acres, about 75 percent of Alaska's entitlement. This includes patent to 23 million acres and tentative approval for patent to an additional 57 million acres.

To implement the Alaska Railroad Transfer Act of 1983 and on behalf of the Secretary of Transportation, BLM completed draft documents to transfer the Alaska Railroad from the Federal Government to the State of Alaska. The transfer is expected to be completed in January 1985.

Approximately 3,700 Native allotment cases covering 5,600 parcels are pending in Alaska. In addition, approximately 100 settlement claims and other applications for title transfer of small parcels are pending. In Fiscal Year 1984, BLM took action on 1,784 Native allotment cases and closed 89 settlement cases. Adjudication of these settlement claims and other applications still must be completed. All parcels will require boundary staking, survey, and preparation and approval of the survey plat before the patent can be prepared and issued.

During Fiscal Year 1984, BLM conveyed 2.7 million acres to Alaska Native corporations. As of September 30, 1984, interim conveyances and patents have been issued for 33.3 million acres of land (75 percent of their entitlement), including patent to 3.5 million acres and interim conveyance of 29.8 million acres.

Approximately 65,000 mining claim location notices are on file with BLM in Alaska, with about 12,000 new claims filed each year. Tens of thousands of mining claims have been filed on lands selected by the Native corporations and the State. Before these lands can be conveyed, determinations must be made as to whether claims are properly filed under the Federal Land Policy and Management Act and if annual affidavits of assessment or notices of intent to hold the claims are filed in a timely manner.

Many land areas in Alaska have been closed to a variety of uses by Secretarial order over the years. Since 1981, BLM has opened 8.8 million acres in Alaska to mining, 7.7 million acres to mineral leasing, and 3.0 million acres to settlement or FLPMA sales and leases.

Rights-of-Way

"The Secretary, with respect to the public lands . . . [is] authorized to grant, issue, or renew rights-of-way over, upon, under, or through such lands . . ."
(FLPMA, Sec. 501 (a))

One of the main objectives in the Rights-of-Way Program is to institute full cost recovery for reimbursable rights-of-way authorized under FLPMA and the Mineral Leasing Act of 1920. Because of a Tenth Circuit Court ruling concerning cost recovery, the requirement that fees paid for right-of-way costs for applications filed under FLPMA must be reasonable has been thoroughly evaluated. Interim guidance concerning the determination of reasonable costs has been provided to BLM field offices.

A proposed rulemaking for Mineral Leasing Act cost recovery procedures was issued in June 1984. A temporary final rulemaking clarifying the regulations concerning cost recovery procedures for a right-of-way granted for the Trans Alaska Pipeline System also was approved in July.

In Fiscal Year 1984, BLM was involved in various stages of the rights-of-way granting process for 8 major pipelines, 4 power plants, 6 transmission lines, 2 wind generation developments, and 2,582 smaller rights-of-way (including 619 oil and gas rights-of-way, 669 other energy rights-of-way, and 1,294 nonenergy rights-of-way).

Acquisitions

"Notwithstanding any other provisions of law, the Secretary, with respect to the public lands . . . [is] authorized to acquire pursuant to this Act by purchase, exchange, donation, or eminent domain, lands or interests therein . . ."
(FLPMA, Sec. 205 (a))

BLM has the authority to acquire both the access and other rights needed for public land management, and lands valuable for recreation under the Land and Water Conservation Fund (LWCF). In Fiscal Year 1984, BLM acquired a total of 156 easements. Of these, 130 were for the purpose of providing access to public lands, and the remainder provided rights for such projects as livestock watering facilities, fences, and communication sites. Most tracts were obtained at the appraised price, with only 17 tracts requiring a purchase offer above the appraised value.

In addition, 12 tracts totaling 616 acres were purchased under LWCF funds. No condemnation actions were initiated in Fiscal Year 1984.

Withdrawal Review

"The Secretary shall, within fifteen years of the date of enactment of this Act, review withdrawals existing on the date of approval of this Act, in the States of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming . . ."

(FLPMA Sec. 204 (1) (1))

The Federal Land Policy and Management Act mandated a review of certain public land withdrawals in 11 Western States by 1991 to determine whether, and for how long, the existing withdrawals should be continued.

During Fiscal Year 1984, other Federal land-holding agencies continued review of their withdrawn land. BLM completed field review of approximately 2 million acres withdrawn by other agencies from all or some of the mineral and other public land laws.

The Secretary approved 52 public land orders opening 241,000 acres to surface entry, of which 22,500 acres also were opened to mining. It was not necessary to open substantial acreage to mineral leasing since the withdrawals usually did not close the areas to this activity. BLM also terminated restrictive land classifications of approximately 6.5 million acres, thereby further improving multiple use of public lands.

Twenty withdrawals encompassing 92,360 acres were completed for such varied uses as wildlife refuges, administrative sites, recreation sites, watersheds, a metallurgical laboratory, a cemetery, and a prison.

Recreation Management

"... the public lands ... will provide for outdoor recreation ..."

(FLPMA, Sec. 102 (a) (8))

Hiking, camping, fishing, river rafting, off-road vehicle use, and other resource dependent recreation are some of the most popular uses of the public lands. BLM's recreation program provides information on available recreation resources; input to Bureau planning efforts where recreation issues exist; and visitor assistance, use supervision, and Recreation Area Management Planning in more intensively used areas.

In February 1984 a special recreation permit policy was adopted. It requires all commercial and competitive users and, in special areas, groups and individual users to obtain permits and pay fees for recreation use. Regulations for special recreation permits were revised to reflect the new policy and published in August 1984. During Fiscal Year 1984, nearly 6,000 special recreation permits were issued. Fees collected for these permits exceeded \$650,000.



A number of long-term visitor areas have been designated along the Lower Colorado River in Arizona and California. Minimal facilities are provided, and, beginning October 1, 1984, a nominal fee of \$25 per season is charged for issuing a special use permit. These designated areas will help control indiscriminate use of the public lands and minimize damage to the natural resources.

Management plans for six Wild and Scenic Rivers in Alaska were completed and issued during the year.

The Garnet Winter Trail in Montana and the Marble Creek Trail in Idaho were designated as National Recreation Trails during Fiscal Year 1984. The Garnet Trail provides more than 30 miles of snowmobile and ski touring opportunities; the Marble Creek Trail adds 9.7 miles of hiking trail to an existing system and will be cooperatively managed with the Forest Service.

BLM issued a national policy for the management of caves on public lands, setting goals for the identification, protection, and management of these unique geological features. A national level Memorandum of Understanding was signed between the National Speleological Society, the Cave Research Foundation, and BLM. It recognizes previous assistance, encourages continued participation, and provides a basis for developing cooperative management agreements at the local level.

Cooperative management agreements covering protection of historic resources, snowmobile trail management, management of an off-road vehicle area and cave resource management were signed. In all, 19 agreements were executed with user groups, conservation organizations, universities, and State and local governments.

Natural History Resource Management

"the public lands [will] be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; [and] that, where appropriate, will preserve and protect certain public lands in their natural condition."

(FLPMA, Sec. 102 (a) (8))

Through the Natural History Resource Management Program BLM identifies natural areas on public lands having significant scientific and educational values; develops and implements site specific measures to protect these areas (while allowing all compatible uses); and facilitates use of these areas by researchers, educators, and others in environmental science fields. Efforts are coordinated with other Federal agencies, State and local governments, and private institutions to identify the types of natural areas needed in a balanced national system.

During Fiscal Year 1984, 48 areas comprised of more than 552,000 acres were designated as Areas of Critical Environmental Concern. These designations are made to protect and manage important historic, cultural, or scenic values; fish and wildlife resources or other natural systems or processes; or to point out natural hazards.

Fifteen Research Natural Areas containing 4,700 acres were added, bringing the number of BLM areas in the system to 58. These areas are designated to maintain natural diversity and facilitate scientific research.

In addition, six Outstanding Natural Areas totaling 3,980 acres were designated.

Cultural Resource Management

"The Secretary of the Interior is authorized . . . to expend and maintain a national register of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, and culture, hereinafter referred to as the National Register, and to grant funds to States for the purpose of preparing comprehensive statewide historic surveys and plans, in accordance with criteria established by the Secretary for the preservation, acquisition, and development of such properties;"

(National Historic Preservation Act of 1966, Sec. 101 (a) (1))

Public lands contain a physical record of some 20,000 years of human history. In a partial inventory BLM has recorded approximately 100,000 archaeological and historic properties and estimates that as many as 5 million properties exist on public lands.

its cultural resource management program, BLM identifies, records, evaluates, plans for, and makes informed judgments on the use of the cultural resources under its jurisdiction. Approximately 17,000 cultural properties have been evaluated and classified according to several categories of use: socio-cultural use, current or potential scientific use, management use, and conservation for future use.

More than 320 BLM cultural properties are now on the National Register of Historic Places. Approximately 400 additional properties have been nominated or formally determined eligible for inclusion. Also, an estimated 14,000 properties have been evaluated as possibly suitable for nomination, a number that is increasing at a rate of more than 1,000 properties per year.

Inventories of existing cultural resource data have been compiled for about 75 percent of BLM-administered lands. In addition, low percentage sample inventories were completed on about 5 million acres during Fiscal Year 1984.

More than 35,000 fragile and threatened cultural properties were protected during the year by one or more means, including patrolling, posting signs, erecting fences, and site stabilization; periodic patrol was carried out over nearly 2.5 million acres of public lands.

Redelegation for permitting authority under the Antiquities Act and Archaeological Resources Protection Act was approved by the Secretary of Interior on October 1, 1984, giving BLM's Director overall responsibility for the program on public lands. BLM State Directors now have authority to issue and monitor hundreds of archaeological permits every year.

At the same time, the Secretary also delegated authority to the Director to issue permits for inventory and excavation of paleontological resources by qualified applicants. The paleontology program was transferred from the Division of Geology and Mineral Resources during the year to the Division of Recreation, Cultural and Wilderness Resources.

A contract has been awarded for the preparation of a technical report on the use of cultural resource predictive models during BLM planning efforts. The final report, which is scheduled for completion by mid-1985, will discuss use of statistical models, adequacy of data bases, and management applications.



Wilderness Review

"... the Secretary shall review those roadless areas of five thousand acres or more and roadless islands of the public lands, identified during the inventory ... as having wilderness characteristics described in the Wilderness Act of September 3, 1964 ... and shall from time to time report to the President his recommendation as to the suitability or unsuitability of each such area or island for preservation as wilderness. . ."

(FLPMA Sec. 603 (a))

Preservation and management of wilderness became part of BLM's multiple use mandate with the passage of FLPMA. BLM completed its wilderness inventory in the Western States in November 1980. There are now approximately 780 wilderness study areas (WSA's) containing about 24 million acres.

During Fiscal Year 1984, BLM passed the halfway mark in completing field studies of these WSA's. Recommendations from 34 field level wilderness study efforts, covering a total of 202 WSA's, were under review in Washington in preparation for action by the Secretary.

Final wilderness environmental impact statements (EIS's) were issued on four "instant study areas"—areas that had been formally identified prior to July 1, 1975, as natural or primitive areas. This readied these four (Great Rift in Idaho, Powderhorn in Colorado, Humbug Spires in Montana, and Scab Creek in Wyoming) for action by the Secretary.

BLM continued its monitoring of wilderness study areas to protect them against unauthorized activities that could impair their suitability for wilderness designation. Where violations were encountered, BLM sought to have the responsible parties rehabilitate the damaged lands. Such rehabilitation work is in progress in a number of WSA's.

Five of the "instant study areas" were designated as wilderness by Congress during Fiscal Year 1984—Aravaipa Canyon (Arizona), Paria Canyon (Arizona and Utah), Paiute (Arizona), Vermillion Cliffs (Arizona), and Bear Trap Canyon (Montana). Congressional action also added 13 other BLM areas in Arizona, California, Oregon, Washington, and Utah to the National Wilderness Preservation System. As a result of all the additions, the total acreage of BLM public lands in the wilderness system increased from approximately 13,000 acres at the beginning of the fiscal year to 341,000 acres at the end. Table B lists all BLM designated wilderness as of October 1, 1984.

BLM's first wilderness management plan was published in draft form during Fiscal Year 1984 for the Bear Trap Canyon unit of the Lee Metcalf Wilderness (Montana). BLM also took preparatory steps toward management planning for the other newly designated wilderness areas.

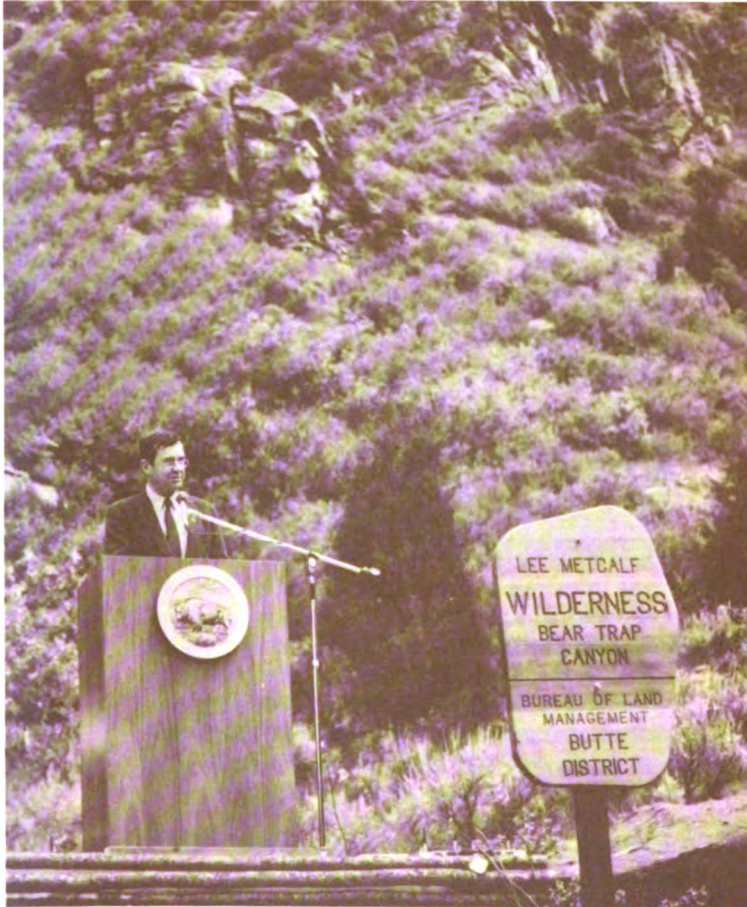


TABLE B

Bureau of Land Management Designated Wilderness Lands as of October 1, 1984

State	Wilderness	BLM Acres	Public Law No.	Year Designated	Administering Agency
Arizona	Aravaipa Canyon	6,670	98-406	1984	BLM
	Cottonwood Point	6,500	98-406	1984	BLM
	Grand Wash Cliffs	36,300	98-406	1984	BLM
	Kanab Creek	8,850	98-406	1984	BLM
	Mt. Logan	14,600	98-406	1984	BLM
	Mt. Trumbull	7,900	98-406	1984	BLM
	Paiute	84,700	98-406	1984	BLM
Arizona/Utah	Paria Canyon-Vermillion Cliffs	110,000	98-406	1984	BLM
	Beaver Dam Mountains	19,600	98-406	1984	BLM
	Santa Lucia	1,733	95-237	1978	Forest Service
California	Ishi	240	98-425	1984	BLM
	Machesna Mountain	120	98-425	1984	BLM
	Trinity Alps	4,623	98-425	1984	BLM
	Yolla Bolly-Middle Eel	8,500	98-425	1984	BLM
	River of No Return	720	96-312	1980	Forest Service
Idaho	Bear Trap Canyon (Part of Lee Metcalf Wilderness)	6,000	98-140	1983	BLM
	Hells Canyon	1,038	98-328	1984	BLM
Oregon	Oregon Islands	5	95-450	1978	BLM
	Table Rock	5,500	98-328	1984	BLM
	Wild Rogue	10,160	95-237	1978	Forest Service
Washington	Juniper Dunes	7,140	98-339	1984	BLM
Total		340,899			

D. Renewable Resources

Rangeland Management

"The Secretary of the Interior shall . . . insure the objects of . . . grazing districts, namely to regulate their occupancy and use, to preserve the land and its resources from destruction or unnecessary injury, [and] to provide for the orderly use, improvement, and development of the range."

(Taylor Grazing Act Sec. 2)

Public rangelands—lands on which the native vegetation is predominantly grasses, grasslike plants, forbs, or shrubs—cover 170 million acres in 16 Western States, exclusive of Alaska. BLM's management of these lands is guided by the Taylor Grazing Act (TGA) of 1934, the Federal Land Policy and Management Act (FLPMA) of 1976, and the Public Rangelands Improvement Act (PRIA) of 1978.

This year the rangeland management program celebrated the 50th anniversary of passage of the Taylor Grazing Act, which was signed into law by President Franklin D. Roosevelt on June 28, 1934. Program emphasis continues to be on goals established by TGA as modified and expanded by FLPMA and PRIA:

- To administer livestock grazing on public rangelands to balance use and sustain resource productivity;
- To protect and improve the rangeland resources through sound land use planning, which includes making cost effective investment and management decisions;
- To make decisions in consultation, cooperation, and coordination with the lessees/permittees involved, the affected landowners, interest groups, individuals, and other agencies; and
- To make sure that improvements in rangelands provide multiple use benefits.

BLM conducts soil and vegetation inventories to aid the land use planning process and to provide a baseline for monitoring. Monitoring studies are conducted to determine if rangeland management goals are being met and to determine the need for and extent of changes from current management practices. Grazing permits are issued for periods of up to 10 years and authorize the annual grazing use by approximately 21,000 livestock operators.

Preparation of site specific grazing environmental impact statements (EIS's) continues. The 99 completed EIS's, including 15 completed in Fiscal Year 1984, address livestock grazing on 125 million acres of public lands in 10 States; an additional 20 EIS's covering 20 million acres will be completed in Fiscal Year 1985.



BLM and the Forest Service continue to conduct the experimental stewardship program (ESP) authorized by PRIA. The purpose of ESP is to explore ways to improve the public rangelands through increased cooperation among all rangeland users involved by providing incentives for, or rewards to, livestock operators whose grazing management results in improved resource conditions.

Based on the results of ESP and similar cooperative management efforts with State wildlife agencies and volunteer groups, BLM initiated a cooperative management agreement (CMA) program. BLM will enter into CMA's with livestock operators, wildlife and recreational organizations, and other user groups for shared management of a specific activity on a specific area of public land.

During the year, 27 CMA's were signed with livestock operators following an evaluation of each operator's qualifications, including his past record as a responsible and effective rangeland resource manager. A CMA does not give a cooperator the authority to limit or exclude other public land uses and users, nor does it exempt a cooperator from laws or regulations affecting public land management. It does recognize those demonstrating a commitment to a high level of stewardship.

By combining the selective management (categorization) policy with the final rangeland improvement policy and investment criteria, BLM is identifying those allotments with the greatest potential for improvement of rangeland condition and productivity as well as areas where the need to resolve management conflicts is greatest. BLM prepared 278 allotment management plans (AMP's) on high priority allotments and implemented a total of 173 AMP's during Fiscal Year 1984.

About 11.8 million acres were inventoried and 5,415 allotments monitored to assure that grazing use is consistent with resource productivity and established management direction. Issuance of permits and leases, use supervision and prompt prevention and detection of unauthorized grazing use continue to be high priority program elements on all BLM managed lands, as evidenced by the fact that 27,213 grazing permits were issued and 8,622 allotments were supervised during Fiscal Year 1984.

Improving the condition of public rangeland for the benefit of wildlife, watershed protection, and domestic livestock is also a primary concern of the range program. Range improvement activities include seeding, fence construction, weed control, water development, enhancement of fish and wildlife habitat, and maintenance of existing improvements. Decisions on the types of improvements needed are reached through the Resource Management Planning/Environmental Impact Statement and activity planning processes.

BLM is completing the transfer of responsibility for maintaining structural rangeland improvements to individuals directly benefiting from those improvements. Funds formerly spent for maintenance will be available for new improvements. In another effort to increase the amount of funds available, BLM is encouraging private contributions toward rangeland improvements on public lands.



Investment analysis criteria, including use of economic analysis procedures, were implemented by BLM in 1983 to determine which allotments have the greatest potential to yield a positive return on range improvement investment. Investments that cannot be justified strictly on economic terms must demonstrate overriding resource or social concerns, and BLM's 39 District Grazing Advisory Boards have an active role in the decisionmaking.

During Fiscal Year 1984, the following accomplishments were made in the range improvement program:

- 652 water facilities were developed;
- 519 miles of fencing were constructed;
- 133 management facilities were developed;
- 13,026 acres of vegetation were treated;
- 730 range improvement projects were surveyed and designed;
- 1,304 water facilities were maintained;
- 321 miles of fencing were maintained; and
- 107 management facilities were maintained.

Soil, Water, and Air Management

Protection and management of the soil, water, and air resources of the public lands are basic BLM responsibilities and are central to both the short- and long-term objectives of BLM programs. Identification or inventory of existing soil, water, and air resources provides the information needed for multiple-use planning and program management.

Assessing the impacts of other resource programs on the soil, water, and air resources and establishing protective measures are significant program efforts. BLM also develops practices and measures to stabilize soils and improve water quality and quantity. During Fiscal Year 1984, 340 watershed improvement projects were developed.

A total of 7.5 million acres of soils were inventoried during the year, bringing the total number of acres inventoried to 127.3 million acres. The goal is to identify the characteristics of the soils on all public lands by 1990. Information on the acreage inventoried is used for planning by other resource programs.

With the hydrologic inventory of 2.9 million acres and the inventory of 9,808 water sources in Fiscal Year 1984, almost 50 percent of the total workload necessary to identify and quantify water use is now complete. BLM will share this information with States to help them identify what water sources on public lands are available for appropriation under State water law. Filings were made to the States on 7,156 water sources by BLM to protect water needs for management of the public lands.

BLM's air resource program supports the National Acid Precipitation Assessment Program by operating 11 acid rain monitoring stations at remote locations in the Western States. These stations are providing data essential for the development of national acid precipitation maps to determine the trends and possible impacts of acid deposition in the western United States. In addition, 55 air/climate monitoring stations are being maintained.

Forest Management

"the public lands [will] be managed in a manner which recognizes the Nation's need for domestic sources of . . . timber . . ."

(FLPMA, Sec. 101 (a) (12))

BLM administers approximately 90 million acres of forest land, of which 64 million acres are in Alaska, where timber development has been deferred until State selection, Native claims, withdrawals, and other dispositions are completed. Of the 26 million acres of forest land outside of Alaska, 5 million acres are capable of producing high quality commercial timber in quantities sufficient to warrant intensive management. The remaining 21 million acres, called "woodlands," are covered with open-grown stands of widely scattered trees.

By far the most commercially valuable of the timberlands managed by BLM are the 2.4 million acres in western Oregon known as the "Oregon and California (O&C) railroad grant lands" and the "Coos Bay Wagon Road (CBWR) grant lands." Among the most productive forests in the country, these lands produce about 91 percent of the total board feet harvested annually from BLM forests.

The depressed lumber market and unusually high bidding on timber sales from 1979 to 1981 continued to plague the purchasers of BLM timber. However, timber sale activity remained brisk, and timber harvest was at the highest level since 1979. In western Oregon,



0.66 billion board feet of timber were sold during Fiscal Year 1984, and 1,038 million board feet were harvested. On public lands outside of western Oregon, BLM sold 92 million board feet of timber.

Reforestation was completed on about 17,500 acres in western Oregon and on 700 acres in other areas. In addition, 49,500 acres in western Oregon and 2,200 acres outside of western Oregon were prepared, protected, or otherwise treated for timber management.

Wildlife

"The Secretary of the Interior and the Secretary of Agriculture shall each, in cooperation with the State agencies and in accordance with comprehensive plans developed pursuant to section 202 of this title, plan, develop, maintain, and coordinate programs for the conservation and rehabilitation of wildlife, fish, and game. Such conservation and rehabilitation programs shall include, but not be limited to, specific habitat improvement projects and related activities and adequate protection for species considered threatened or endangered."

(Sikes Act of 1974, Sec. 201 (a))

BLM manages extensive and diverse habitat for hundreds of wildlife species, including some 80 Federally listed threatened and endangered plant and animal species. Working with State wildlife agencies, BLM ensures that wildlife needs are considered in all land-use planning and decisionmaking.

BLM has executed memoranda of understanding and numerous cooperative agreements with 14 Western States and 7 Eastern States. To summarize these arrangements, the States are responsible for wildlife population management, while BLM is responsible for managing the habitat on public lands.

During Fiscal Year 1984, BLM inventoried 11.9 million acres of wildlife and fish habitat, focusing on those public lands where critical issues or potential conflicts are the greatest. Ninety-four new habitat management plans were prepared or revised, and BLM participated in the development of 15 recovery plans and the implementation of 25 such plans for threatened and endangered species. Monitoring to evaluate the effectiveness of management actions was performed on 20.7 million acres of habitat.

Wildlife and fish habitat was improved on 2.3 million acres and maintained on 20.7 million acres. BLM continued cooperation with State wildlife agencies to ensure conservation and rehabilitation of wildlife habitat under the Sikes Act and FLPMA authority. Also, BLM entered into 12 new cooperative management agreements for wildlife habitats.





Wild Horse and Burro Management

"... Congress finds and declares that wild free-roaming horses and burros are living symbols of the historic and pioneer spirit of the West; that they contribute to the diversity of life forms within the Nation and enrich the lives of the American people. . . . It is the policy of Congress that wild free-roaming horses and burros shall be protected from capture, branding, harassment or death; and to accomplish this they are to be considered in the area where presently found, as an integral part of the natural system of the public lands."

(The Wild Free-Roaming Horse and Burro Act of 1971, as amended)

More than 60,000 wild horses and burros roaming public lands in 10 Western States are

under the jurisdiction of BLM (see Table C). In Fiscal Year 1984, the wild horse and burro program's mission essentially remained unchanged and included the following objectives:

- To preserve wild free-roaming horses and burros on public lands as symbols of America's historic and pioneer heritage;
- To protect wild free-roaming horses and burros from illegal capture, branding, harassment, or death;
- To manage wild free-roaming horses and burros as components of the public lands in a manner that maintains or improves the rangeland ecosystem; and
- To provide humane care and treatment for wild horses and burros removed from the public lands.

Some of the problems of the previous year, such as the disposition of excess animals, multiplied in Fiscal Year 1984. The moratorium on the destruction of healthy animals established in 1982 remained in effect, and proposed legislation providing authority to sell excess animals for which no adoption demand exists failed to reach the floor of either the House of Representatives or the Senate. The number of excess animals maintained in BLM corrals, the average amount of time the animals spent in the corrals, and the cost to the Government of their maintenance all increased. At times during the year, as many as 3,000 animals were being maintained at a daily cost of nearly \$6,000.

To alleviate this problem, an emergency rule was implemented in May giving the Director authority to adjust or waive the adoption fees for animals unadopted at the standard fees of \$125 per horse and \$75 per burro. Under this authority, BLM approved fee waivers or adjustments for the adoption of more than 700 horses. Nevertheless, BLM began Fiscal Year 1985 with approximately 2,500 excess wild horses and burros in corrals.

Program accomplishments during Fiscal Year 1984 included the removal of 6,084 excess animals from the range and the adoption of 5,491 animals. The number of adoptions increased approximately 8 percent from Fiscal Year 1983 to Fiscal Year 1984. The removal figure, however, represents a decrease of nearly 9 percent from the previous year, a decrease caused by the diversion of funds from the removal program to feed the large number of unadopted animals in BLM facilities.

In the Adopt-A-Horse (or Burro) Program, 42 temporary adoption centers operated in Fiscal Year 1984, 15 more than the previous year. The temporary centers bring animals to areas not conveniently served by a permanent adoption center. In recent years, this outreach approach has played a significant role in maintaining the level of adoptions. More than 50,000 wild horses and burros now have been placed in private maintenance through the Adopt-A-Horse Program since its inception in 1973.

No litigation was resolved finally during Fiscal Year 1984, and three new suits were filed against the Department of the Interior and BLM, bringing the number of cases outstand-



ing to seven. The pending cases all seek to require BLM to remove wild horses from public or private lands, and some of the suits raise the issue of Federal Government responsibility for damage to private land by wild horses.

TABLE C
ESTIMATED WILD HORSE AND
BURRO POPULATIONS
ON BLM LANDS
September 30, 1984*

State	Horses	Burros	Total
Arizona	130	3,620	3,750
California	3,935	6,344	10,279
Colorado	696	0	696
Idaho	630	0	630
Montana	164	0	164
Nevada	32,975	2,023	34,998
New Mexico	191	16	207
Oregon	3,745	29	3,774
Utah	1,810	58	1,868
Wyoming	7,604	0	7,604
Totals	51,880	12,090	63,970

* Population estimates for September 30, 1984, are based on censuses conducted in previous years, removals in Fiscal Year 1984, and an estimated annual population growth rate of 16 percent.



Law Enforcement

"The Secretary shall issue regulations necessary to implement the provisions of this Act with respect to the management, use, and protection of the public lands, including the property located thereon. . . . The Secretary may authorize Federal personnel or appropriate local officials to carry out his law enforcement responsibilities with respect to the public lands and their resources. Such designated personnel shall receive the training and have the responsibilities and authority provided for in [FLPMA]."

(FLPMA, Sec. 303 (a) and (c) (2))

Law enforcement efforts on the public lands administered by BLM began shortly before the passage of FLPMA. The Wild Free-Roaming Horse and Burro Act of 1971 provided basic authority for the hiring of BLM's first special agents. Amendments to the Sikes Act of 1974 and other subsequent special acts added additional authority in specified areas. But the passage of FLPMA provided general law enforcement authority for all BLM lands.

BLM law enforcement specialists estimate that 85 percent of their work involves crimes against property. Something of the value and diversity of public land resources affected can be seen in the list of cases that Special Agents have investigated in recent years: timber theft, wild horse killing and theft, desert land entry fraud, removal and theft of cactus for commercial use, mineral theft, range arson, destruction of recreation sites, trespass on public lands, removal or defacement of antiquities, public land survey marker destruction, oil and gas lease fraud, and the illegal growing of marijuana.

In 1984, BLM employed 17 Rangers and 27 Special Agents, all well-trained in law enforcement. In addition to its own law enforcement personnel, BLM relies on law enforcement agreements with State and local agencies that provide requested services. In 1984, BLM had 52 of these agreements.

From its beginning in 1978 until 1984, BLM's Ranger Program was restricted to the California Desert Conservation Area in Southern California. In May of last year, the Secretary of the Interior authorized the hiring of additional Rangers to be utilized in other BLM areas requiring a law enforcement presence similar to the California Desert experience.

During Fiscal Year 1984, BLM continued its effort with the other Federal, State, and local agencies to eradicate marijuana on public lands in California, Oregon, and other Western States. Such a cooperative effort is California's Campaign against Marijuana Planting (CAMP). BLM played a leadership role in supporting and helping to organize CAMP in 1984. Over 144,000 plants were destroyed, representing an estimated \$288 million worth of marijuana. The Oregon Command Center approach, in which BLM also participated, was equally successful, making seizures amounting to millions of dollars.

In cooperation with the Denver Service Center Scientific Systems Division, BLM's Eastern States Office law enforcement staff has implemented a surveillance system using Landsat data to monitor for trespass on areas with federally owned minerals. The system was developed to reduce field detection time and provide an annual watch over large tracts too vast for effective ground patrol.

In addition to criminal violations, there are numerous cases of unauthorized use that are administrative or civil in nature and require law enforcement actions. Unauthorized use accounts for a major portion of all violations of regulations or laws that are used to administer the public lands.

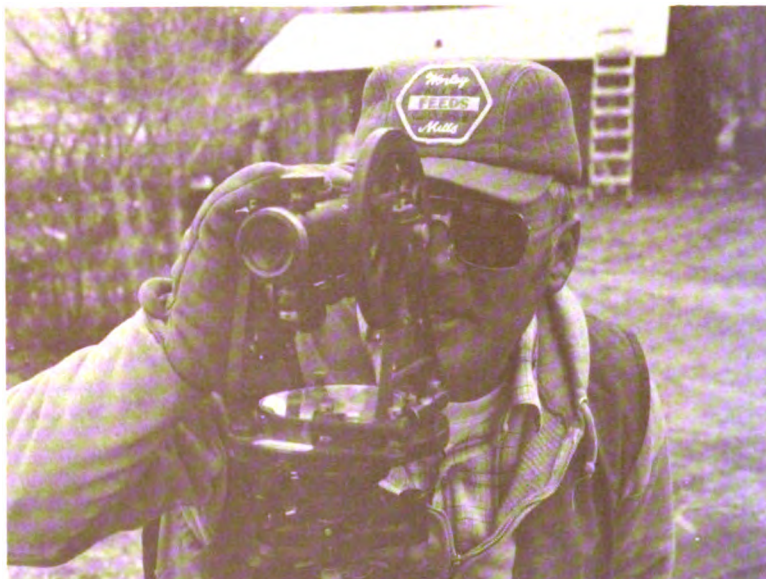
Cadastral Survey

"The public lands shall be divided by north and south lines run according to the true meridian, and by others crossing them at right angles, so as to form townships of six miles square. . . .

"These field-books shall be returned to the Secretary of the Interior . . . who shall cause therefrom a description of the whole lands surveyed to be made out. . . . He shall also cause a fair plat to be made of townships and fractional parts of townships contained in the lands. . . . This plat shall be recorded in books to be kept for that purpose; and . . . copies shall be sent to the . . . Bureau of Land Management."

(43 U.S.C. 751)

The responsibility for the administration and execution of cadastral surveys originally rested with the General Land Office but was transferred to the Bureau of Land Management in 1946 when the General Land Office was merged with the Grazing Service to form BLM. Legally defensible boundaries are essential for identification of ownership so that the management of the public lands can proceed. Cadastral survey also resurveys those areas where markers have deteriorated or have become lost or obliterated for the purpose of retracing or reestablishing the boundaries between Federal, private, and State-owned lands.



Cadastral survey information is depicted on a base through the use of cartography. The accurate portrayal of the Public Land Survey System land records and status on a geographically referenced base is of prime importance to land managers, both public and private. Many of the BLM mapping requirements are satisfied through cooperative efforts with other Federal agencies.

Much of the cadastral survey's work in the Lower 48 States is performed on a reimbursable basis for other Federal agencies. BLM performs surveys and resurveys for the Forest Service, Bureau of Indian Affairs, National Park Service, the Bureau of Reclamation, U.S. Fish and Wildlife Service, the Department of Defense, and occasionally the Department of Justice. Unless supervised and approved by BLM, resurveys of the boundaries of these public lands and also of many Federal reservations do not become part of the official public land records system. The increased use of local project offices has improved local public communications and increased work accomplishments.

Accomplishments during Fiscal Year 1984 in the Lower 48 States include completion of 595 plats, 256,644 acres of original survey, and 1,246,954 acres of resurvey.

Original survey work remains a major program element in Alaska. BLM has surveyed the exterior township boundaries of approximately 80.3 million acres, or about 54 percent of the 149 million acres required under the Alaska Statehood Act and the Alaska Native Claims Settlement Act. However, the majority of these townships need further surveys in the interior to identify valid private rights of third interests.

In addition, 239.7 million acres remain unsurveyed in Alaska, including the millions of acres needed to identify boundaries of national parks, national forests, wildlife refuges, and wild and scenic rivers created by the Alaska National Interest Lands Conservation Act. BLM has surveyed 18.6 million acres of land that is presently under BLM jurisdiction.

New survey technology continues to be developed to reduce the enormous workload of the cadastral survey program. The increased use of doppler survey techniques in the Lower 48 States has improved the accuracy of the cadastral survey as well as assisted local county governments in automating their land records to a more precisely defined Public Land Survey System.

Plans for Fiscal Year 1985 include additional use of the auto-surveyor system to survey meander lines of bodies of water within those surveyed townships that have not been approved officially. This action, combined with the expanded program of photogrammetric identification of water boundaries, will provide the necessary data to prepare final plats on approximately 2,200 townships. These township plats have not been approved pending the determination of the meander lines. There will be an increased emphasis on the small tract (internal) surveys in Fiscal Year 1985 so that patents can be issued to the surveyed townships.

Calendar year 1985 marks the 200th anniversary of cadastral survey. The program commenced under the writings of Thomas Jefferson in 1785.

Engineering

Although BLM continues to obtain most of its building space from the General Services Administration, rapid growth and the shortage of facilities available for lease (especially in remote locations) often forced BLM to construct and maintain its own facilities to provide services for visitors to the public lands. Specialized structures such as telecommunication buildings, well pumping buildings, seed storage bins, greenhouses, and warehouses frequently are built to order.

BLM maintained 832 structures during Fiscal Year 1984, including office buildings, warehouses, shops, storage buildings, fire stations, lookouts, and related facilities such as parking areas. Special emphasis continues to be placed on corrective maintenance and improvements for energy conservation. Construction continued on BLM's Elko District Office complex.

During the year BLM completed construction of one bridge and performed maintenance on approximately 5,847 miles of road, 1,163 miles of trail, and 23 bridges, giving priority to those that receive the greatest use and have the highest erosion potential.

With the exception of timber access roads, most road construction has been delayed until resource management plans and wilderness reviews are complete. It is anticipated that the completion of these plans will necessitate great changes in the transportation construction and maintenance programs.

Fire and Aviation Management

Under its Fire Management Program, BLM is responsible for protecting property and natural resource values on the public lands from wildfire, rehabilitating areas damaged by wildfire, and ensuring that "prescribed burning" designed to accomplish a variety of resource management objectives is safely conducted and controlled.

BLM carries out these responsibilities on approximately 380 million acres, including some land administered by other Federal agencies, States, and private parties. It contracts with other Federal, State, and private agencies to protect roughly 6 million acres of this total. Approximately 170 million acres, or half of the total, are in Alaska.

number of recreation projects are planned throughout the West and in Alaska. These include visitor centers, sanitary facilities, cave protection work, campsites, and information stations. All will require engineering services. Approximately 5,000 undeveloped sites (those without water) and 436 developed recreation facilities received minimal maintenance in Fiscal Year 1984. More than 150 hazards were removed or made safer for visitors. This included filling abandoned mine shafts, removing dead trees, and barricading cliffs.

Scientific Systems, formerly part of the Information Systems Division, has been transferred to Engineering. During Fiscal Year 1984, BLM continued efforts to automate processes for the collection, analysis, storage, and display of natural resource information to reduce workmonth costs. Computerized, geographically referenced data bases for public lands were developed and used for such diverse purposes as:

- Identifying areas best suited for range improvement—roads, dams, and rangeland treatment
- Modeling fire fuels to determine ignition probability and fire spread rate
- Calculating the volume of pits and mine spoils requiring environmental reclamation
- Monitoring mining activities for illegal operations on public lands
- Preparing environmental impact statements and range management plans
- Inventorying vegetation types within areas exceeding 500,000 acres
- Assessing areas of greatest mineral potential for multiple use evaluation
- Delineating polygons for pre-soil inventory



The Boise Interagency Fire Center (BIFC) in Idaho serves firefighting agencies of the Departments of Agriculture and the Interior and of the States on a national basis. For BLM, it is the central location for fire training and communications development, fire equipment overhaul, and fire supply cache. BIFC coordinates efforts to suppress project fires (large, complex fires) on BLM lands in the 12 Western States, including Alaska. During periods of extreme fire problems, BIFC assists other Federal fire-fighting agencies.

Resource management plans are beginning to identify levels of fire planning (e.g., full suppression or limited/modified suppression) and resource objectives where prescribed fire can be utilized. Several implementation plans have been prepared that attempt to balance suppression costs with resource values. In Fiscal Year 1984, 15 fire management plans were developed.

As techniques for controlling fire have improved, all Federal wildfire suppression agencies have adopted new procedures to use fire as a tool to meet identified resource management objectives. Prescribed burning is used to enhance wildlife habitat, improve range forage mixes, improve watersheds, improve the visual backdrop, and remove forest harvest residues, as well as many other applications. During Fiscal Year 1984, 647 prescribed burns covering 110,614 acres were held on public lands.

In the last 10 years, BLM has averaged 2,961 fires and 414,264 acres burned. The 1984 fire season, with 2,600 fires and 715,000 acres burned, was generally an average fire year. However, northern Nevada, eastern Oregon, and southern Idaho were well above average. In these areas a moist spring and early summer allowed heavy growth of vegetation that cured out to provide fuel for wildfires in the late summer. Dry lightning storms ignited fires, creating numerous multiple fire situations like the one that existed in Montana. In Nevada, BLM had a 28 percent increase in reportable fire, 617 fires, and a 214 percent increase in acres burned, 196,000 acres.

Trends show an increase in the number of person-caused fires and a decrease in the acreage burned for two reasons: first, increased use of public lands has raised the incidence of fire, even though fire prevention programs have kept the rate of this increase lower than the rate of increased use; second, in 1972, BLM modified its priorities from combating large "disaster" fires and improved both its initial attack capabilities and early fire detection systems. Consequently, most wildfires now are brought under control sooner, and the acreage burned is less than in the past.

The first phase of the Initial Attack Management System was completed in 1983-1984. When the remainder of the system is in place, field-level fire managers will have computer generated information to help them make wise, cost effective decisions. The system will display cloud-to-ground lightning strikes, weather and fuel conditions, maps, probability of lightning ignition, estimates of fire behavior and the suppression forces needed, and more. With the system, BLM intends to reduce lightning fires that escape initial attack by 25 to 50 percent. Fuels mapping continued during 1984 with additional mapping planned in Fiscal Year 1985 and beyond. Phases II and III of the system are planned for Fiscal Year 1986 and 1987 appropriations.

Aviation management is a part of the fire management program and provides Bureau-wide guidance in aircraft use policy and procedures development, operational assistance, safety, and training. Activities are coordinated with agencies with regulatory responsibilities or like operations. The aviation management function is being reorganized to provide a technical staff at the Headquarters and State Office levels. The total reorganization is expected to be completed during Fiscal Year 1985.

General Administration

Administrative Services

Supporting the public land management efforts requires 5.6 million square feet of improved real property. Of this total, BLM has direct jurisdiction over 1.8 million square feet of space. BLM employs the open space concept of space arrangements wherever possible to improve space utilization and to allow flexibility.

BLM utilized over \$119 million worth of accountable equipment in Fiscal Year 1984 to manage the lands under BLM stewardship. Transportation required in the management of these lands totaled 44.5 million miles. This was an increase of .5 million miles over Fiscal Year 1983 but was accomplished with fewer vehicles, resulting in better utilization and a savings of approximately \$56,000 to the taxpayer.

Automated phototypesetters have been acquired for the Colorado and Utah State Offices. Anticipated savings in printing and mail costs are \$75,000 per year.

An automated inventory management system has been installed in BLM's Denver Service Center, Printed Materials Distribution Section (PMDS). Savings resulting from better inventory management are estimated at \$35,000 per year. Distribution methods for shipping printed materials to field offices have been changed, resulting in a reduction of approximately \$95,000 per year in distribution costs.

During Fiscal Year 1984, BLM spent \$55.1 million for goods and services. Formal contracts awarded by the Washington Office, Denver Service Center, and Oregon State Office to support field programs totaled \$28.8 million. Field offices expended an additional \$26.3 million, mostly for small purchases.

BLM continues to exceed its goals in various socioeconomic programs:

	FY 1984 Goal (\$000)	Actual Contract Award
Labor Surplus Area		
Set-asides	\$ 6.8	\$10.7
Small Businesses	31.3	34.1
Women Business Enterprises	.9	.9

BLM is continuing to develop an automated procurement planning system to track and monitor contract awards. The preparation of solicitation and contract documents also is being automated, which will produce significant clerical efficiencies.

Personnel Management

BLM's Division of Personnel and Training in the Headquarters Office concentrated much of its efforts on classification issues during Fiscal Year 1984. Organizational structures and positions were designed to promote the most effective use of personnel resources. Specific actions taken were:

- Establishment of a Position and Pay Management Steering Committee to assess major program, function, and position areas needing review for classification, position, and pay management purposes.
- Active participation in a Departmental task force developing recommendations for implementing administration mandates to improve effectiveness and efficiency in the administrative workforce.
- An indepth review of District Manager and Area Manager positions to re-examine the validity of the classification standard used in evaluating these positions.
- Development of a proposed qualification and classification standard for Natural Resource Manager to provide a better evaluation tool for District Manager and Area Manager positions in accordance with the Bureau's multiple use priorities.

At the end of Fiscal Year 1984, BLM employed an estimated 10,800 individuals, 8,800 of which had full-time permanent appointments. During the year, about 10,200 full-time equivalent workyears were utilized.

Employee and Visitor Safety

Reduction of accidental loss is vital to the accomplishment of BLM's mission and to its public service commitment. BLM management officials are committed to a dynamic occupational safety and health program for employees and to the safe enjoyment by the public of the Nation's public lands. Field offices during Fiscal Year 1984 continued their occupational hygiene surveys and "job hazard analyses" to identify and abate environmental hazards and unsafe work practices. The continued downward trend in accidents demonstrates their effectiveness.

Management Research

The Division of Management Research in BLM's Headquarters Office analyzes and directs organization and management system changes and implementation. Organizational structures and management systems have been developed that provide for responsive decisionmaking at the field level. Many functions have been decentralized, and authority for organizational changes, personnel management, and appraisals has been delegated to the States.

Evaluations/Audits

BLM's Division of Program Evaluation in the Headquarters Office conducts internal evaluation of BLM programs, general management, and special issues. During Fiscal Year 1984, the Division conducted three General Management Evaluations: in Colorado (March), in Wyoming (April), and in the Eastern States Office (September). It also conducted a special evaluation of the Cadastral Survey Program in June.

The General Accounting Office (GAO) issued eight Final Reports in Fiscal Year 1984 affecting BLM. Other GAO audits are in progress and draft reports have been reviewed. Final reports issued were:

GAO/RCED-84-10—Interior Department Activities Concerning Proposed Natural Gas Tight Formations in Montana

GAO/RCED-84-14—Alaska Land Conveyance Program—A Slow, Complex and Costly Process

GAO/RCED-84-17—Legislative Changes Needed to Authorize Emergency Federal Coal Leasing

GAO/AFMD-84-55—Budgetary Treatment of Monetary Credits (Memorandum Report)

GAO/RCED-84-108—Economic Uses of National Wildlife Refuge System Unlikely to Increase Significantly

GAO/RCED-84-110—Mineral Leasing Act Reciprocity Provisions

GAO/RCED-84-127—The Bureau of Land Management Should Follow Fair Market Value Requirements in Selling Land in Las Vegas, Nevada

GAO/RCED-84-167—Deficiencies in Department of Interior, OIG Investigation of the Powder River Basin Coal Leasing Sale

The Department of the Interior's Office of the Inspector General (OIG) issued 10 Final Reports in Fiscal Year 1984 affecting BLM. The OIG also issued 16 pre-award or contract audit reports. Final reports issued were:

W-LW-BLM-07-83—Fees for Temporary Use Permits Not Established in Accordance with the Code of Federal Regulations (Letter Report)

W-LW-BLM-07-83B—Review of Selected Administrative Areas at California State Office and District Offices (Memo Report)

C-LW-BLM-08-83—Administration of Non-Producing Mineral Leases, BLM

C-LW-BLM-08-83A—Preliminary Review of Automated Land and Mineral Record System—ALMRS

W-LW-BLM-13-83—Review of Selected Activities of the BLM Idaho State Office

C-LW-BLM-09-84—Review of the Simultaneous Oil and Gas Leasing (SIMO)

E-MO-MOA-10-84A—Comments on Statements and Reports Prepared Under the Federal Manager's Financial Integrity Act of 1982

C-LW-BLM-06-84A—Royalty Rate Reduction Granted WECO (Western Energy Corporation) on Two Federal Coal Leases in Montana

C-MO-MOA-22-84—Cooperative ADP System Planning Between Minerals Management Service and BLM (Memo Report)

Memo Report—Distribution of Royalties from Federal Leases to the Kiowa, Comanche, and Apache Tribes

Information Resources Management

A Fiscal Year 1984 change from the Information Systems Division to Information Resources Management (IRM) Division was made to emphasize the broad nature of IRM and to be in line with the Department of the Interior and other government and business organizations. This emphasizes automated data, telecommunications, and records management are not separate entities but part of information resource management. This trend in government and industry highlights information as a valuable resource to be shared among the various organizations to permit economies of scale and to prevent duplication of data and/or records.

The merger of information from the onshore portion of the Minerals Management Service into BLM still is proceeding smoothly. A few of the supporting systems continue to be shifted from U.S. Geological Survey computers to those of BLM.

Information systems workload during Fiscal Year 1984 centered on:

- continuing the automation of lands and minerals records;
- acquiring more microcomputers for District and Resource Area Offices to provide more responsive computing power to the users;
- completing more than 500 operations and maintenance system changes and 42 developmental projects;
- extensively overhauling BLM's Financial Management System;
- performing Information System Reviews for three State Offices to assist them in evaluating their information systems, telecommunications, and records management needs and capabilities; and
- performing an Internal Control Review at BLM's computer center in Denver, as required by the General Accounting Office.

In the telecommunications field, BLM entered into facilities sharing agreements with the National Oceanic and Atmospheric Administration and the Forest Service. These agreements permit the agencies to meet their communications needs with a minimum of duplication of effort, equipment, and services.

BLM established a micrographics pilot program in the New Mexico State Office to test the feasibility of using microfilm records to replace paper working records. Procedures for identification, use, handling, and physical security of Proprietary/Confidential Information contained in onshore minerals records were published during the year, and workshops were held for all BLM personnel involved with that material. Procedures for handling all onshore records also were published.

Volunteers and Other Contributed Services

When BLM initiated its volunteers program in 1982 by inviting citizens to "make a difference as volunteers for America's public lands," no one was sure that the invitation would be accepted. Already, more than 3,500 volunteers are contributing approximately 150 workyears of services valued at some \$1.9 million a year. Bureauwide, BLM volunteers in effect are extending the agency's employee workforce by about 1.5 percent. As an indication of future potential, California BLM volunteers already are having the effect of extending the employee staff by 4 percent, and in the Ukiah, California, District, by 8 percent.

Bureau officials' initial interest in inviting citizens to volunteer stemmed from their concerns about current workloads, budget and personnel limits, and the consequent need to seek supplemental means to assist employee staff in getting the job done. However, additional benefits have resulted such as building partnerships and improving understandings with local communities and public land user groups of many kinds.

At the same time, volunteers are realizing their educational goals and improving skills through on-the-job experience, as well as obtaining personal satisfaction through contributing to public service.

To acknowledge outstanding services contributed by volunteers for the public lands, BLM's Director initiated a Bureauwide volunteer awards program in 1984. The activities of some of those nominated for these awards by BLM State Directors give a sense of what is happening in the volunteers program:

- A father and his three teenage children in Las Vegas, Nevada, donated more than 640 hours of service during the year at BLM's nearby Red Rock Canyon Recreation Lands. Their contributions included landscaping the area's visitor center with

- cactus and other desert vegetation transplanted from areas scheduled to be disturbed, building cedar post barriers to guide visitors, and conducting tours through the area.
- Members of the Arizona Big Horn Sheep Society built water catchments and other wildlife habitat improvements on BLM-managed mountain lands in Arizona. Their contributed labor during 1984 was valued at more than \$75,000; over the last few years, 15 such projects worth \$375,000 have been built, improved, or maintained by Society members.
 - A Lakeview District, Oregon, woman served as the driving force in establishing one of BLM's finest herbariums. She also monitored several wilderness study areas and established a nature trail.
 - A graduate student worked for prolonged periods in remote areas of Alaska under difficult field conditions on such diverse projects as collecting data on salmon spawning habitats, taking stream sediment samples for mineral assessment, and assisting in design of a geochemical field-sampling program.
 - Members of the National Speleological Society's Southwestern Region contributed several thousand hours to assist BLM's Roswell (New Mexico) District in managing the District's more than 800 caves. The Society's members discovered six new cave locations; conducted cave tours for the public; assisted in cave-related research in hydrology, climatology, paleontology, geology, and biology; mapped cave passages; and cleaned up caves and nearby campgrounds.
 - A recently retired Arizona couple served as hosts at the Kingman (Arizona) District's Burro Creek Campground for two 8-month camping seasons. The couple prepared and distributed a map guiding visitors to nearby rockhounding areas, informed visitors about BLM's newly established campground fee system, and operated a well-managed campground.
 - A 69-year-old Roseburg, Oregon man—by his “gentle prodding, soft-spoken agitation, persistence and warm friendly manner”—fired the enthusiasm of all those he involved in initiating a trail project across lands managed by both BLM and the Forest Service, and then contributed 1,200 hours in supervising weekend crews of volunteers who began building the trail.
 - An Anchorage, Alaska, woman served as reader for a BLM field official who is blind, thus enabling the official to keep up with job-related information otherwise available only in printed form. The volunteer, who contributed 40 hours weekly to this service, read these printed materials onto cassette tapes for permanent reference access, as well as assisting the official with face-to-face reading.
 - Colorado Archaeological Society members conducted transects on 1,800 acres of mountain land and excavated with hand trowels and dental picks as they searched for evidence of prehistoric Indian activity.
- Those who contributed their services to assist BLM during the year also included 260 college student Resource Management Assistants, who served on a diversity of 12-week paraprofessional work projects in 70 BLM areas. The students worked under guidance of BLM staff professionals in most of the natural resource disciplines. The students gained educational and career preparation benefits from their service with BLM's Student Conservation Program, operated in cooperation with the nonprofit Student Conservation Association.
- At year's end Congress passed and the President approved legislation that rounded out BLM's authority to operate a comprehensive volunteers program. Public Law 98-540 includes authority to provide for services or costs that are incidental to BLM's acceptance of contributed services, including reimbursement to volunteers for such costs as mileage and meals. This provision, which may be used by local managers on a case-by-case basis, is expected to make it more practicable for persons with limited financial means to serve as volunteers for the public lands.

In addition to volunteer services contributed by individuals and organizations, BLM is attracting private-sector donations of funds, equipment, and materials to assist in public land management. Some examples during Fiscal Year 1984 include:

- An electric utility has donated more than \$200,000 for a 3-year study of how best to improve winter habitat for bald eagles in a California area where a powerline project is being planned.

- At Nevada's Red Rock Canyon Recreation Lands near Las Vegas, a local building materials firm donated \$10,000 worth of cactus and other desert plant materials to landscape the area's visitor center. The volunteer landscaping labor was contributed by Boy Scouts, guided by members of the Las Vegas Plant and Succulent Society.

A nationwide computerized raptor (birds of prey) management information system managed by BLM is being funded principally by the Edison Electric Institute and the Electric Power Research Institute.

A coalition of California businesses and private associations is donating approximately \$150,000 for a film exhibit depicting uses and benefits of the public lands.

In Idaho, an electric power company donated publication of a visitors' brochure for the BLM-managed Snake River Birds of Prey Natural Area in the Boise District.



I. Financial Management

Appropriations and Expenditures

Bureau of Land Management programs are funded through six major operating appropriations, several minor permanent and trust appropriations, and reimbursements from other Federal agencies for work performed on their behalf. In addition, the BLM budget includes the annual appropriation and numerous permanent appropriations that provide funds to State and local governments in which Federal land resources are located, either as payments in lieu of taxes or as shared revenues from the sale, leasing, or disposition of resource commodities.

A history of the total funding available to BLM since Fiscal Year 1981 includes the following:

	FY 1981	FY 1982	FY 1983	FY 1984
	(in millions)			
BLM Operating Appropriations	\$ 491.3	\$ 502.0	\$ 427.9	\$ 482.7
Payments-in-Lieu of Taxes	103.0	95.5	96.3	105.0
Permanent Payments to States, etc.	433.8	637.7	579.8	58.1
Other miscellaneous	7.3	4.9	6.4	7.7
Totals	\$1,035.4	\$1,240.1	\$1,110.4	\$ 653.5

Funding and obligation data on a program by program basis for Fiscal Years 1983, 1984, and 1985 follow.

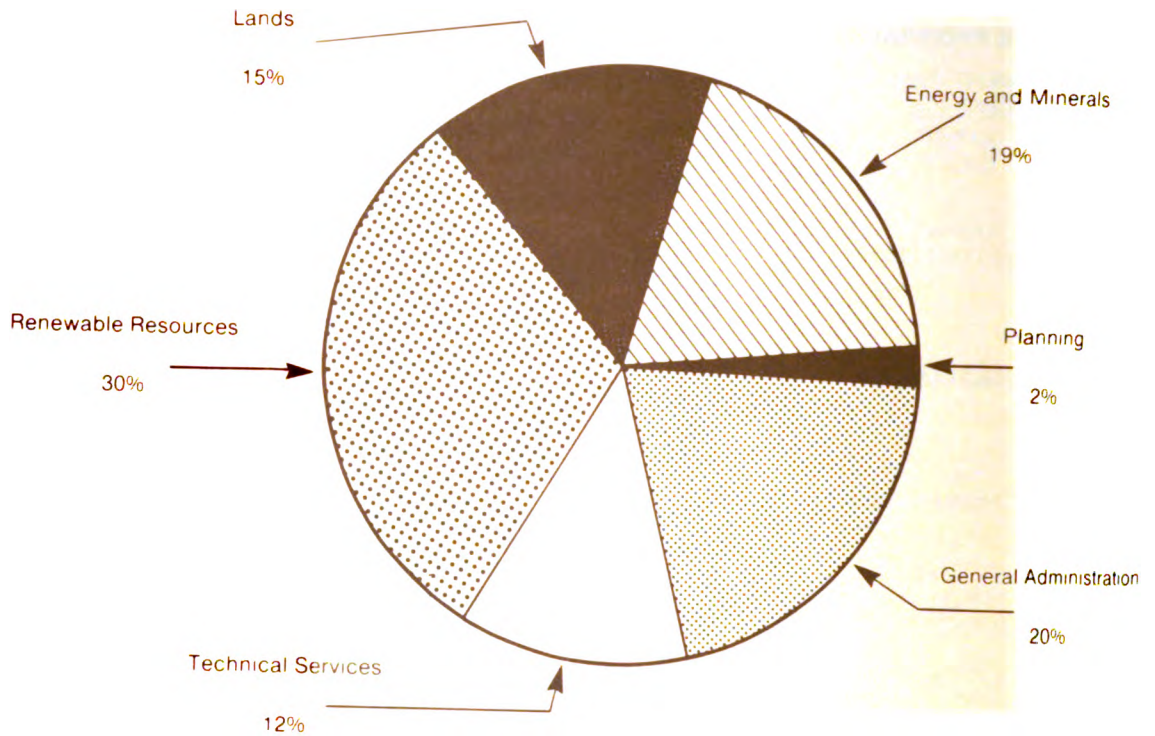
	FY 1983 Actual	FY 1984 Actual	FY 1985 Proposed
	(in thousands)		
PLANNING			
Appropriation	\$ 8,973	\$ 9,063	\$ 9,330
Obligations	8,750	9,062	9,330
Work Years	241	238	240
ENERGY AND MINERALS PROGRAMS			
OIL AND GAS MANAGEMENT			
Appropriation	28,666	40,491	42,363
Obligations	28,556	40,466	42,363
Work Years	792	1,100	1,210
GEO THERMAL MANAGEMENT			
Appropriation	2,760	2,957	3,227
Obligations	2,562	2,957	3,227
Work Years	62	72	72
COAL MANAGEMENT			
Appropriation	20,259	17,420	18,432
Obligations	18,783	17,417	18,432
Work Years	313	331	367
OIL SHALE/TAR SANDS MANAGEMENT			
Appropriation	4,118	2,148	2,307
Obligations	4,070	2,148	2,307
Work Years	73	47	70
NONENERGY LEASABLES (Mineral Leasing and Uranium Operations)			
Appropriation	3,324	4,456	4,758
Obligations	3,069	4,454	4,758
Work Years	70	91	107
MINING LAW ADMINISTRATION & MINING MATERIALS			
Appropriation	8,631	9,655	10,247
Obligations	8,262	9,654	10,247
Work Years	247	270	296

	FY 1983 Actual	FY 1984 Actual	FY 1985 Proposed
	(in thousands)		
LANDS PROGRAMS			
ENERGY AND NONENERGY REALTY			
Appropriation	\$32,553	\$38,075	\$17,913
Obligations	32,840	38,062	17,913
Work Years	666	676	661
ALASKA LANDS*			
Appropriation	0	0	13,172
Obligations	0	0	13,172
Work Years	282	306	284
RIGHTS-OF-WAY*			
Appropriation	0	0	6,715
Obligations	0	0	6,715
Work Years	0	0	150
ACQUISITIONS			
Appropriation	711	6,144	17,710
Obligations	3,050	1,445	17,710
Work Years	7	6	6
WITHDRAWAL REVIEW			
Appropriation	4,079	3,529	4,034
Obligations	3,291	3,519	4,034
Work Years	99	90	120
WILDERNESS REVIEW			
Appropriation	12,179	7,020	6,519
Obligations	11,918	7,019	6,519
Work Years	176	174	90
RECREATION MANAGEMENT			
Appropriation	6,489	7,212	12,610
Obligations	6,470	7,211	12,610
Work Years	191	192	168
NATURAL HISTORY & CULTURAL RESOURCE MANAGEMENT			
Appropriation	4,566	4,843	5,083
Obligations	4,467	4,843	5,083
Work Years	117	116	110

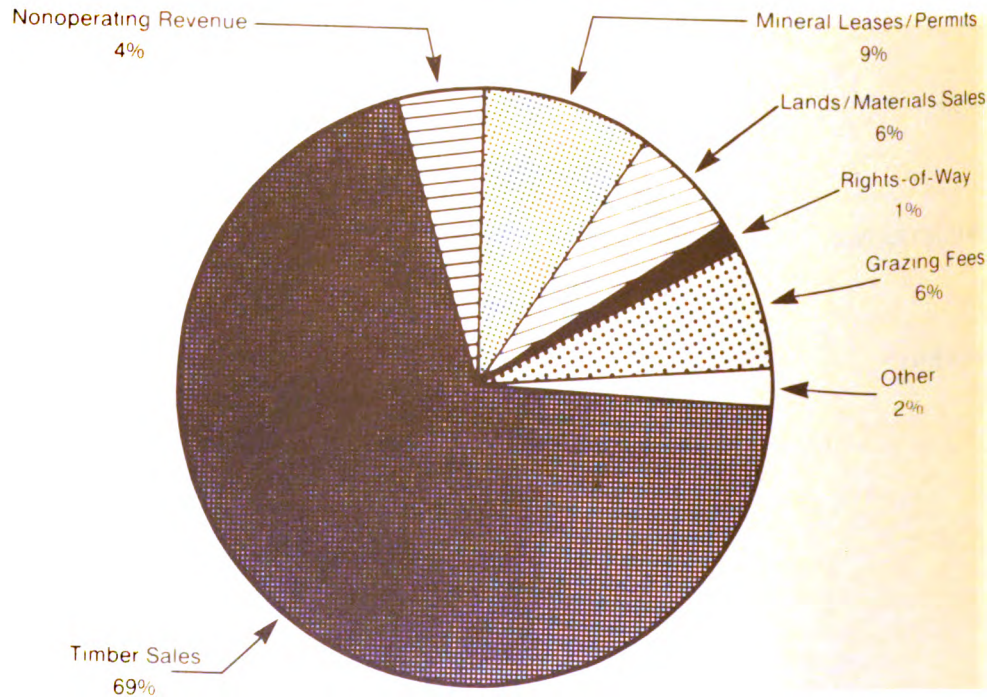
*Funded as part of the Energy and Nonenergy Realty Program in Fiscal Years 1983 and 1984.

	FY 1983 Actual	FY 1984 Actual	FY 1985 Proposed
	(in thousands)		
RENEWABLE RESOURCE PROGRAMS			
RANGELAND MANAGEMENT (Includes Soil, Water, and Air)			
Appropriation	\$62,900	\$61,356	\$58,138
Obligations	63,160	59,539	58,138
Work Years	1,444	1,347	1,188
FOREST MANAGEMENT (Includes Public Domain and O&C Lands)			
Appropriation	43,447	43,622	50,340
Obligations	42,550	43,527	50,340
Work Years	1,052	1,037	927
WILDLIFE HABITAT MANAGEMENT			
Appropriation	15,150	13,604	15,783
Obligations	15,014	13,604	15,783
Work Years	372	341	283
WILD HORSE & BURRO MANAGEMENT			
Appropriation	4,877	5,766	16,739
Obligations	4,877	5,765	16,739
Work Years	88	98	90
SUPPORT SERVICES			
LAW ENFORCEMENT			
Appropriation	2,022	2,073	2,328
Obligations	1,933	2,073	2,328
Work Years	22	33	25
CADASTRAL SURVEY			
Appropriation	21,594	23,873	24,826
Obligations	20,989	23,824	24,826
Work Years	476	468	470
ENGINEERING			
Appropriation	989	982	1,138
Obligations	987	981	1,138
Work Years	25	23	26
FIRE MANAGEMENT			
Appropriation	12,048	10,686	9,107
Obligations	11,389	10,739	9,107
Work Years	145	153	141
GENERAL ADMINISTRATION			
Appropriation	75,865	82,352	83,081
Obligations	75,700	82,269	83,081
Work Years	1,227	1,275	1,300
DATA MANAGEMENT			
Appropriation	12,932	14,376	13,463
Obligations	12,209	14,375	13,463
Work Years	210	246	230

BLM FY 1984 OBLIGATIONS



BLM FY 1984 RECEIPTS



Revenues and Receipts

The Bureau of Land Management is a primary collector of Federal revenues. Gross receipts from the lease, use, and sale of public lands and resources totaled approximately \$215 million in Fiscal Year 1984 (see Table D). Of this amount, \$80 million will be returned to the States, \$17.1 million was transferred to the Reclamation fund, \$9.6 million was transferred to other Federal agencies, and the remaining \$108.3 million went into the general fund of the United States Treasury. Monies appropriated from the Treasury to BLM for operating expenses totaled \$427 million in Fiscal Year 1984.

The development and use of BLM lands and resources generate receipts from a variety of sources. Timber receipts have increased to \$53.2 million in Fiscal Year 1984. Sales of public lands, including Burton-Santini Act sales in Nevada, are developing into a significant source of revenues.

BLM also generates receipts from a variety of other sources including grazing, right-of-way leases and permits, simultaneous oil and gas filing fees, and other miscellaneous receipts.

The Secretary's moratorium on the simultaneous oil and gas filing program was lifted in June, and new procedures were established for the first lease sale in August 1984. Approximately \$118 million was received from applicants and deposited into the U.S. Treasury, pending determination of bid awards. This sum included a nonrefundable fee of \$75 and a deposit of an amount equal to the first year's rental upon each tract for which a bid was made. The first year rental is refunded to all unsuccessful applicants. The nonrefundable applicant's fee and the first year rental receipts from the successful applicants are deposited into the general receipt account of the Treasury.

Table D. Bureau of Land Management Receipts

	FY 1984	FY 1985 Estimated
STATEMENT OF PUBLIC LAND RECEIPTS		
Mineral Leases and Permits	\$20,235,765 ^a	\$20,000,000
Sales of Public Lands & Materials (includes Burton-Santini Act sales in Nevada)	13,528,679	8,500,000
Sales of Public Timber	14,540,168	11,800,000
Simultaneous Oil & Gas Filing Fees	- 5,039,171 ^b	30,000,000
Fees and Commissions	2,437,897	2,342,000
O&C Lands (Timber Sales)	131,962,369	115,100,000
Coos Bay Wagon Road Lands (Timber Sales)	6,656,791	3,900,000
Grazing Fees	15,015,371	16,115,000
Rights-of-Way	3,509,327	1,942,000
Miscellaneous Leases and Permits	611,439	800,000
Nonoperating Revenue ^c	10,037,545	12,610,000
Other ^d	670,600	1,400,000
Rent of Land	817,911	800,000
Total	\$214,984,691	\$205,309,000
ALLOCATION OF PUBLIC LANDS RECEIPTS		
States and Counties	80,029,821	62,181,000
Reclamation Fund	17,085,753	11,628,000
Indian Trust Fund	22,394	0
General Fund	117,846,723	131,500,000
Total	\$214,984,691	\$205,309,000

^a Only reflects receipts collected for the rental of the oil and gas pipeline right-of-way; Minerals Management Service is responsible for collecting other rental, royalty, and bonus revenues.

^b Refunds were only activity during Fiscal Year 1984.

^c Incidental receipts from fines, taxes, etc., that are unrelated to routine public land administration.

^d Receipts from miscellaneous materials sales under the Materials Disposal Act.

C. State and Local Shares

BLM's most direct fiscal impact upon public land States and localities is through revenue sharing and other direct payments. In the decade from 1974 through 1984, State and local governments received \$3.7 billion from the Department of the Interior as their share of revenues collected from the lease or sale of public land resources and as in-lieu payments for tax-exempt lands.

Revenue Sharing

The dominant source of BLM revenue is the energy mineral leasing program. Although the Minerals Management Service took over the receipt and distribution function for onshore revenues on October 1, 1984, BLM still had the responsibility of allocating mineral leasing revenues collected during the last 6-month period of Fiscal Year 1983. BLM also maintains the responsibility for the allocation of National Petroleum Reserve revenues as well as oil and gas right-of-way pipeline rentals.

Taylor Grazing Act revenues are distributed differently according to the type of land

generating them. Of the fees collected from livestock grazing districts, 12.5 percent are distributed to the State for expenditure by the State legislature to benefit the counties generating these grazing receipts. Grazing revenues generated on public lands outside of grazing districts are divided equally with the State; again the State legislature has the authority to expend the funds to benefit the counties where grazing monies are collected.

Land sale revenues generated in Nevada under the Burton-Santini Act are collected and distributed on an annual basis. This Act authorizes the allocation of 10 percent of gross revenues back to Clark County or the municipality in which these revenues are generated, in addition to a 5 percent allocation to the State of Nevada. The remaining revenues are deposited in the Land and Water Conservation Fund for the purchase of environmentally sensitive land in the Lake Tahoe Basin.

Table E outlines the distribution of receipts to States and indicates the sources of revenue sharing made by BLM during Fiscal Year 1984.

TABLE E—PAYMENT OF BUREAU OF LAND MANAGEMENT RECEIPTS TO STATES AS OF SEPTEMBER 30, 1984 (IN DOLLARS)

STATES	MINERAL LEASES AND PERMITS	FORAGE RECEIPTS OUTSIDE TAYLOR GRAZING DISTRICTS	FORAGE RECEIPTS INSIDE TAYLOR GRAZING DISTRICTS	SALE OF PUBLIC LAND AND TIMBER	OTHER	TOTAL
ALABAMA	109,680					109,680
ALASKA	6,427,539			3,528		6,431,067
ARIZONA	1,945,334	113,863	101,842	18,122		2,179,161
ARKANSAS	283,302					283,302
CALIFORNIA	8,320,719	127,010	22,713	90,633		8,561,075
COLORADO	21,287,245	35,604	88,806	14,145		21,425,800
FLORIDA	195,178					195,178
IDAHO	1,548,649	24,004	216,944	39,788		1,829,385
KANSAS	270,989	89				271,078
LOUISIANA	209,838			174		210,012
MICHIGAN	15,270					15,270
MINNESOTA	446					446
MISSISSIPPI	20,318					20,318
MONTANA	9,773,549	109,289	136,938	33,685	662,874	10,676,335
NEBRASKA	62,613	878				63,491
NEVADA	5,045,830	35,127	314,321	911,107		6,306,385
NEW MEXICO	55,338,109	165,415	253,348	22,200	15,829	55,794,901
NORTH DAKOTA	4,260,550	6,784				4,267,334
OKLAHOMA	446,921	246		333	2,122	449,622
OREGON	1,655,302	36,972	183,436	47,957,781 ^a		49,833,491
SOUTH DAKOTA	465,368	70,445		- 2,024		533,789
TENNESSEE	7,800					7,800
TEXAS	501					501
UTAH	14,091,193		200,963	21,003	991	14,314,150
WASHINGTON	434,656	21,153		18,988		474,797
WYOMING	71,742,086	336,205	218,330	92,345		72,388,966
TOTAL	203,918,985	1,083,084	1,737,641	49,221,808	681,816	256,643,334

^a Includes \$47.2 million for O&C Grant Land, and \$5 million for Coos Bay Wagon Road timber receipts

Payments in Lieu of Taxes

Local government units within Western States are the principal beneficiaries of the 1976 Payments in Lieu of Taxes Act. This law was enacted to provide Federal payments to those areas where large portions of land are in Federal ownership and, therefore, are exempt from local property taxes. Serving as a supplement to revenue sharing funds, payments in lieu of taxes (PILT) are made directly to local governments and may be used for any governmental purpose.

Lands eligible for PILT are federally owned lands in the National Forest and National Park Systems, lands administered by BLM, lands dedicated to the use of Federal water resource development, dredge disposal areas under the jurisdiction of the Army Corps of Engineers, effective as of Fiscal Year 1979, National Wildlife Reserve Areas, inactive and semiactive military installations, and certain lands donated to the United States Government. The Act specifically prohibits payments for lands (but not in donated lands) that were tax exempt before being acquired from State or local governments.

Since PILT Payments started in 1977, more than \$809 million has been paid to local governments; about \$104 million of that amount was paid in Fiscal Year 1984 (see Table F).

TABLE F. SUMMARY OF PAYMENTS IN LIEU OF TAXES BY STATE

State	FY 1984
Alabama	\$ 116,030
Alaska	3,197,406
Arizona	8,707,631
Arkansas	1,662,289
California	11,720,090
Colorado	7,643,480
Connecticut	18,692
Delaware	4,433
District of Columbia	5,929
Florida	1,371,487
Georgia	762,256
Hawaii	9,938
Idaho	7,596,307
Illinois	245,385
Indiana	263,738
Iowa	122,615
Kansas	361,754
Kentucky	649,683
Louisiana	179,882
Maine	47,178
Maryland	54,113
Massachusetts	71,717
Michigan	1,275,610
Minnesota	974,513
Mississippi	387,288
Missouri	1,019,831
Montana	8,504,502
Nebraska	274,504
Nevada	5,528,402
New Hampshire	286,958
New Jersey	50,312
New Mexico	10,071,235
New York	169,841
North Carolina	1,206,408
North Dakota	533,728
Ohio	305,542
Oklahoma	940,315
Oregon	2,728,294
Pennsylvania	261,217
Rhode Island	0
South Carolina	121,310
South Dakota	1,692,992
Tennessee	460,702
Texas	929,648
Utah	8,750,225
Vermont	110,445
Virginia	1,141,074
Washington	3,001,321
West Virginia	785,613
Wisconsin	538,167
Wyoming	7,706,042
Puerto Rico	8,420
Virgin Islands	21,164
Guam	792
Totals	\$104,598,448



A Look Ahead

resolutions and the completion of projects. Activities rarely coincide with the end of the fiscal year, so it is no surprise that many initiatives and issues BLM will face in Fiscal Year 1985 have been carried over from the previous year. In addition, the agency will certainly face a variety of yet-unseen issues and projects this year. At this time, the primary program emphases during Fiscal Year 1985 include the following:

Planning. A total of 29 resource management plans are scheduled for completion. Supplemental guidance for RMP's concerning project standards; implementing, monitoring, evaluating, and amending completed plans; and control and review; and printing and distribution is also planned.

Analysis. A major issue in the social and economic assessment during Fiscal Year 1985 will be improving the quality of analyses while maintaining decentralized planning and decision-making authority within BLM. A reference to socioeconomic mitigation will be included early in the fiscal year. A workshop on social and economic issues is scheduled tentatively in mid-1985, at which time the quality of socioeconomic analyses will be assessed. BLM also will be addressing how resource outputs that are not traded in the marketplace.

Geology and Mineral Resources. The key issue regarding the mineral land classification program is to provide the public and the States a fair return from Federal mineral disposals through the proper delineation of Known Leasing Areas. This issue was highlighted during Fiscal Year 1984 by Federal court decisions that brought into question traditional methods of classifying Federal lands for competitive leasing. BLM has asked the National Academy of Sciences to examine both the statutory and procedural basis for mineral land classifications and to make recommendations that would improve these determinations.

The Geology, Energy and Minerals (GEM) assessment program will continue to address the issues of quality, consistency, and utility of minerals data in BLM decisionmaking. BLM will expand and improve current standards for GEM resource assessments and will continue to encourage public participation in minerals planning.

Important issues concerning the management and protection of groundwater resources will warrant special attention. BLM is working closely with the Environmental Protection Agency and other Federal surface use agencies to ensure a consistent and effective approach to this management problem. Coordination with State and local interests will be equally important in these efforts.

Oil and Gas. As a service to the oil and gas industry, other Federal agencies, States, and Indian Tribes, BLM will continue to host State/regional oil and gas conferences to give interested parties an opportunity to exchange ideas and review areas of mutual concern.

A qualifications audit program will commence operation in Fiscal Year 1985. The program is designed to perform a systematic audit of the qualifications of lessees regarding both the limitation on acreage that any lessee is allowed to hold under lease, and any affiliation a lessee may have to countries determined to be non-reciprocal in their treatment of United States companies.

A proposed Oil and Gas Order setting out detailed guidelines for operation in a Hydrogen Sulfide environment was prepared in Fiscal Year 1984 and will be published and completed during the upcoming year.

Geothermal. BLM plans to consolidate, streamline, and update the regulations pertaining to geothermal resource operations and leasing. An increasing number of geothermal leases approaching the end of their primary term contain one or more wells that appear to be capable of production in commercial quantities but are in jeopardy of expiring because the lessees have not consummated a contract for sale of geothermal resources in accordance with the statutory requirement.

Section 319 of Interior's Fiscal Year 1985 Appropriations Act sets forth conditions under which these leases may be extended to December 31, 1986, to allow time for the lessee to find a market for the resource. This provision applies only to leases in effect as of July 27, 1984.

Coal. In the coal program, completion of revised rules, procedures, and guidelines to implement Linowes Commission recommendations and Office of Technology Assessment policy options is expected by mid-summer 1985. A final programmatic environmental impact statement supplement on Federal coal leasing also is scheduled for completion in July 1985. The Secretary then will reach a decision on whether or not to resume regional coal sales under the revised coal program or to select an alternative program.

Oil Shale/Tar Sands. Development of the fundamental technology of oil shale is well advanced, but still lacks testing at commercial scale. In addition, a wide array of economic, environmental, and some technological uncertainties remain. Congress passed legislation in 1983 concerning off-site waste disposal, lease size, and related issues to provide the flexibility needed to meet the challenges of development.

During Fiscal Year 1985, BLM intends to continue prototype lease management, complete resource management plans in Utah and Colorado, monitor its regulatory initiative in light of legislative development, and identify the need to pursue long-term oil shale leasing through the permanent program with the assistance of the Regional Oil Shale Team.

In the tar sands program, many leasing decisions are expected to be made during Fiscal Year 1985. These include final conversion decisions for 7 major projects and several mining claim applications, preferred alternative decisions for 12 conversion applications, and a final decision on new competitive leasing. Depending on the outcome of the latter decision, the first lease sale under the new program could be held during Fiscal Year 1985, requiring the completion of a process by which Fair Market Value could be assessed.

Further work will be needed to complete rulemaking on the diligence/paying quantities issues and to develop a method for estimating the recoverable resource. Completion of the model unit form is expected during Fiscal Year 1985. A method of assessing the royalty on tar sands also will need to be identified. Finally, initiation of a program manual is planned during the year.

Mining Law Administration and Mineral Materials. During Fiscal Year 1984, the Department of the Interior and BLM supported an amended version of S.2157, "A Bill to Clarify the Treatment of Mineral Materials on Public Lands," which would have amended the Act of July 23, 1955, to authorize the United States to dispose of mineral materials such as sand and gravel located on mining claims. S. 2157 was passed by the Senate, without the above mentioned changes, but the House took no action.

Under the Comprehensive Environmental Response Compensation and Liability Act of 1980 and the Resource Conservation and Recovery Act of 1976, BLM is considered a landowner and thereby may be considered liable for hazardous wastes on the public lands. Because of this liability, BLM has intensified its review of Plans of Operations to ensure operations are in conformance with the statutes.

Hazardous Materials. Activities planned in hazardous materials management during Fiscal Year 1985 include inventory and assessment of potential hazardous waste sites on public lands as required by the 1984 Resource Conservation and Recovery Act amendments, the evaluation of hazardous materials inventory methods used during Fiscal Year 1984, inventory of new sites by all State Offices and validation of Federal and State site identification lists entries. The Fiscal Year 1985 program also will focus on emergency responses, liability and cost control, evidence gathering for potential litigation, employee safety, natural resource damage assessment, and future site control.

Land. During Fiscal Year 1985, additional opportunities to streamline procedures to improve public service and respond to requests for use and acquisition of public lands will be sought. Regulations that will be reviewed for continuing need and possible amendment include: Opening and Closing Land, Airport Grants, Conveyance of Federally Owned Mineral Interests, Recreation and Public Purposes Act—Leases and Conveyances, Airport Leases, and Land Classifications.

Ways to cut costs, reduce case processing time, better conform to land use planning, and eliminate unnecessary requirements continue to be sought.



Regulations implementing the policy that the Department of the Interior would not charge Alaska Native Corporations for certain submerged lands against their entitlement were proposed in August 1983. A court case on this topic filed by the Wilderness Society and Sierra Club still is pending.

A major effort will be made to complete cost recovery rules for both Mineral Leasing Act and FLPMA right-of-way applications. Mineral Leasing Act regulations should be published in final form by January 1985. Implementing procedures also should be released at that time. FLPMA right-of-way regulations should be published in final form by approximately June 1985 and will be in effect by July. Once these regulations are in effect, a major portion of funding for the rights-of-way program will be derived from cost recovery.

Recreation and Wilderness. Fiscal Year 1985 emphases in the recreation program include implementation of the special recreation permit policy and recruitment of assistance in public recreation management. New and innovative approaches to encouraging and utilizing volunteers will be examined and developed. Opportunities and incentives for private organizations and State and local governments to participate in the management of public recreation areas and facilities will be reviewed. In addition, contributions and donations of goods, services, and funds will be pursued aggressively in future years.

With BLM's first major wilderness designations, Fiscal Year 1984 brought new responsibility for wilderness management. And in Arizona, the new wilderness designations were coupled with release from wilderness study area status of approximately 500,000 acres, which means no further interim management constraints. This demonstrates a program shift that will be felt even more in future years, as Congress acts on the results of BLM wilderness studies. The wilderness program gradually will shift from interim management of wilderness study areas to wilderness management of designated wilderness areas.

The acreage affected by the program will, of course, decline as the nonsuitable areas are released by Congress for nonwilderness uses. However, careful management attention will be necessary in the designated wilderness areas to assure that their wilderness character is protected, and that the public will have the best possible opportunities to use these areas.



Rangeland Management. The BLM and Forest Service are completing their joint review of the current grazing fee formula as required by the Public Rangelands Improvement Act (PRIA). That act established the current formula and required that the Secretaries of Agriculture and Interior submit to Congress by December 31, 1985, a report including an evaluation of the PRIA formula and other fee options, including recommendations for a fee system for 1986 and subsequent years. The two agencies currently are preparing the report for submission to Congress during the second half of Fiscal Year 1985.

Reports prepared for each of the Experimental Stewardship Program areas will be consolidated into an assessment of the program. A report to Congress on ESP will be submitted early in Fiscal Year 1985.

The Natural Resources Defense Council, Inc., took legal action in Fiscal Year 1984 to stop BLM from implementing provisions of its grazing regulations that provide for entering into Cooperative Management Agreements for livestock grazing. As a result, the Bureau has issued a moratorium on approval of CMA's with livestock operators until the case is decided.

Forestry. Proposals to set aside timberlands for purposes other than logging continue to be a major issue. BLM expects this issue to be raised many times as land use plans are developed. The use of chemical herbicides as a management tool continues to be controversial, with appeals and legal actions affecting implementation of vegetation management programs on many public land areas.

The President signed the Federal Timber Contract Modification Act on October 16, 1984. This Act allows purchasers holding certain timber sale contracts bid at relatively high prices to turn back to the Federal Government 55 percent of the total volume of those contracts (not to exceed 200 million board feet) upon payment of a buy-out charge. The Act requires both the Forest Service and BLM to publish final implementing rules within 90 days after enactment. The agencies are cooperating to publish final rules during January 1985. The regulations will establish the terms and conditions for the return of contracts and the steps the purchasers must take to request such action.

Wildlife. The wildlife program will continue emphasizing coordination with other BLM programs to ensure that managers have the most complete and comprehensive wildlife information when making multiple use resource decisions. Increased emphasis will be placed on sharing habitat improvement work with the States, which are responsible for managing resident wildlife populations. In addition, private groups that benefit from habitat improvements will be encouraged to make increased investments through donations of funds, materials, and labor.

Wild Horses and Burros. The single most important issue in the wild horse and burro program is how to achieve appropriate management levels. At the close of Fiscal Year 1984, approximately 64,000 wild horses and burros roamed the public lands, nearly 40,000 more than the estimated appropriate management level. Because of the problem of disposing of excess animals that must be removed from the range, a disproportionate amount of program funding goes into the adoption efforts and into maintaining unadopted animals, leaving minimal funds for management of wild free-roaming herds on the public lands. The ever-growing populations are inconsistent with land use decisions and inhibit effective multiple-use management on many areas of the public lands.

In the Fiscal Year 1985 appropriations bill for Interior agencies, BLM was given \$16.7 million and was directed to remove 17,100 excess animals during the year. Thus removals, which will nearly triple the Fiscal Year 1984 totals, will receive major program emphasis.



Other potentially significant issues include the question of Federal Government liability for the taking of forage on private lands by horses or burros; water use by wild horses and burros on public lands included in grazing permits; and alternate means of disposal of unadopted healthy excess wild horses and burros.

Enforcement. An increased area of activity in California and Oregon (and, to some extent, in other Western States) is BLM law enforcement assistance to local officials in the detection of marijuana cultivated on public lands. A coordinated program that includes education, employee awareness, public awareness, and a law enforcement strategy has been developed. It is anticipated that a moderately sized detection and enforcement effort that depends largely on cooperative agreements with local law enforcement agencies, together with an effective public information program, will go a long way toward minimizing the present problem and curtailing the growth of marijuana on the public lands in the future.

Engineering. As BLM's program responsibilities expand to keep pace with public interest in and use of its lands, construction and maintenance become increasingly pressing concerns. Lack of office and storage space are often recurring problems, but BLM must increasingly emphasize its maintenance responsibilities as the intensity of public use of its facilities increases.

Increasing use of BLM roads and trails results in erosion problems because few BLM roads were designed for present use levels or for passenger vehicles. Poor drainage control can result in a soil loss of as much as 100 tons per mile of poorly surfaced road each year, and many of these roads can be used only seasonally. Of the 64,000 miles of existing road, 20,000 are primitive and can be hazardous to visitors accustomed to the highly developed roads in urban areas.

BLM constructs and maintains its transportation system to support its own resource management objectives, and does not construct public roads. However, as population pressures increase, so do demands for BLM to construct and maintain its roads to State and county road standards. To meet such demands, the only option short of closing the road is to transfer some roads out of BLM authority to local public road authority.



Considering the need for recreation facilities, BLM constructs and maintains a very modest number of functional facilities for use by the general public. Particular problems relating to high visitor use occur in the California Desert, along the Colorado River between California and Arizona, in caves in New Mexico, in the Malpais areas of New Mexico, in the Little Sahara sand dunes in Utah, and on the upper Missouri River in Montana. Current plans are to pace new construction with the completion of resource management plans to ensure that BLM is fully prepared to deal with increased use.

Information Resources Management. BLM will continue efforts to put computer power in the hands of the users by improving telecommunications or microcomputer purchases. Information Resources Management related publications, manuals, and directives will be improved and brought into compliance with existing Departmental and OMB guidelines. Four Information Systems reviews will be conducted, and efforts to improve BLM's aging computer system will be continued.

Summary. Overall, BLM faces its usual widespread variety of issues and initiatives during the upcoming fiscal year. As a multiple use agency administering millions of acres of land and diverse resources, BLM is becoming quite proficient in offsetting needed resource development with resource protection. The agency does not operate in a vacuum, however, and close consultation and coordination with State and local governments, private organizations, and the public is extremely important. BLM looks forward to continuing to improve our relationship with our users and the public as we strive to meet the mandates placed upon us by the Federal Land Policy and Management Act.

BLM's Organizational Structure

Bureau of Land Management was established July 16, 1946, through consolidation of the General Land Office (created in 1849) and the Grazing Service (formed in 1933), as set forth in the President's Reorganization Plan 3. Since then, BLM has evolved into a decentralized, line and staff organization.

The Headquarters Office in Washington, D.C., is headed by the Director and Associate Director. They are supported by three Deputy Directors who function as line officials and staff together with the Director and Associate Director, provide top-level executive leadership and management.

The Headquarters Office develops and/or approves executive, legislative, and judicial policies and procedures for programs under BLM administration, and supports Secretarial decisions in coordinating those programs with the Federal, State, and local governments. The Headquarters Office also assures that all responsibilities delegated to other units are being fulfilled according to established policies and procedures. A Table of Organization for the Headquarters Office is shown in Illustration 1.

There are 12 State Offices, each headed by a State Director with line authority. Each office is responsible for all land and resource programs within the geographic area, which usually consists of one or more States (see Illustration 2 for jurisdictions and addresses).

State Offices are responsible for planning, developing, and managing renewable and nonrenewable resource programs, and for maintaining relations with the public and with a variety of organizations. The acreage that western State Offices manage ranges from 7 million acres of public lands in Montana to about 150 million in Alaska. The Eastern States Office, headquartered in Alexandria, Virginia, manages approximately 60,000 acres in States that border on or are east of the Mississippi River and leases minerals on 24 million acres of Federal reserved mineral ownership.

At the local level, 55 District Offices develop and carry out resource management work programs. Each office has responsibility for a portion of the geographical area under the jurisdiction of the State Office. Districts are the basic field component of BLM and are headed by a District Manager, who is a line official.

In the Lower 48 States, the largest District is the California Desert District with over 12 million acres. In Alaska, the Fairbanks District contains approximately 60 million acres. The smallest BLM District administers only 7,000 surface acres in Oklahoma. The average size of a District in the Lower 48 States is about 3 million acres, or an area about the size of Connecticut.

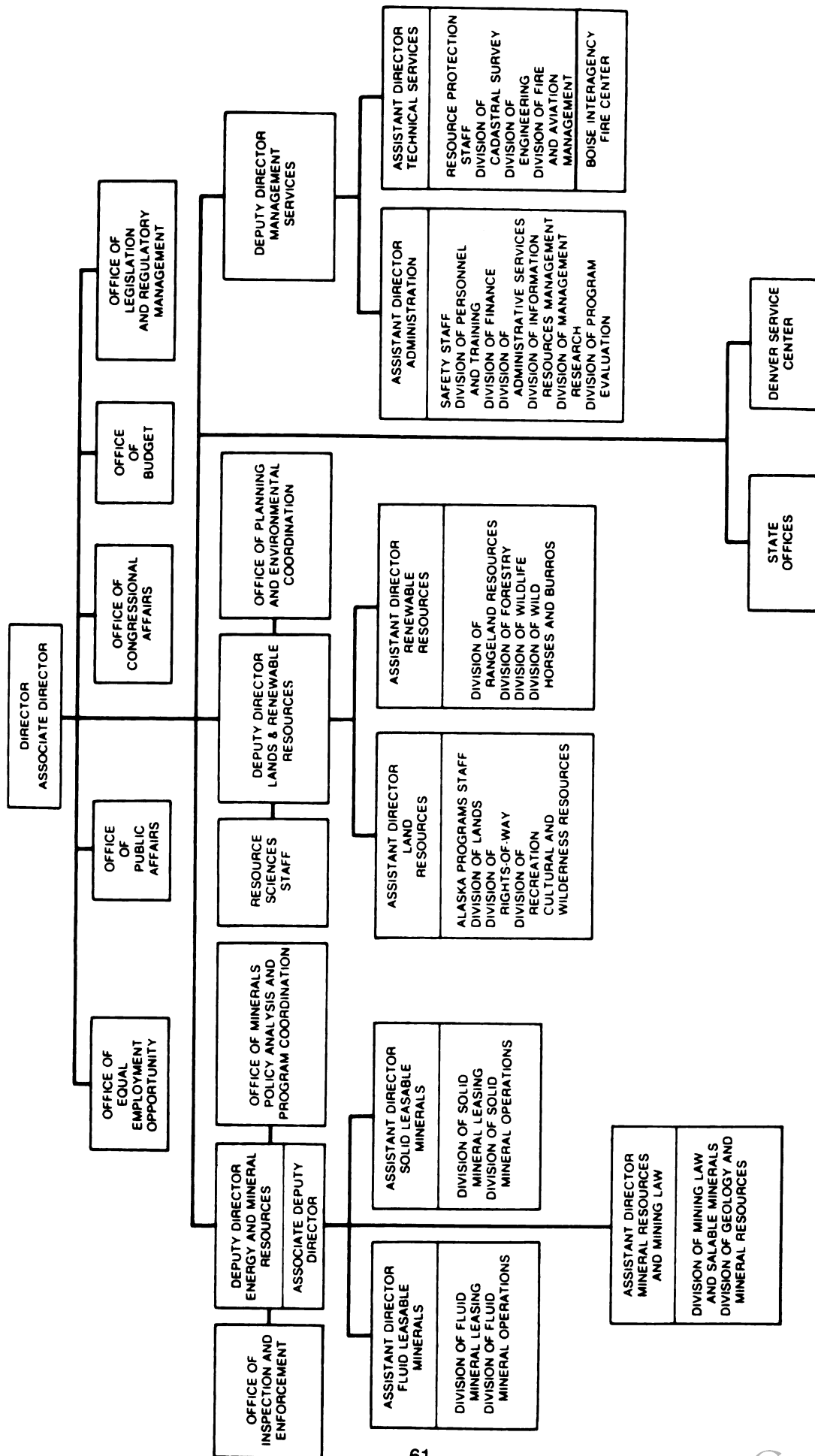
Districts are divided into Resource Areas, administered by Area Managers. These line officials have responsibility for day-to-day resource management activities and implementation of on-the-ground actions for use of the public lands.

Resource Areas in the Lower 48 States range in size from 5.5 million acres in the Tonopah Resource Area of Nevada to Resource Areas as small as 25,000 acres in other States. By comparison, the Arctic Resource Area in Alaska administers approximately 27 million acres.

There are 153 Resource Area Offices in BLM, many of them sharing office locations with District Offices. Fifty-eight are detached Resource Area Headquarters in separate communities.

Two field offices provide special support to BLM: the Denver Service Center and the Boise Interagency Fire Center. The Denver Service Center provides consolidated administrative support to State and District Offices and, to some extent, to the Headquarters Office. It also is charged with gathering, storing, and retrieving natural resource data and adapting scientific and technological concepts to field use. The line official of the Service Center is a Director who reports to the BLM Director.

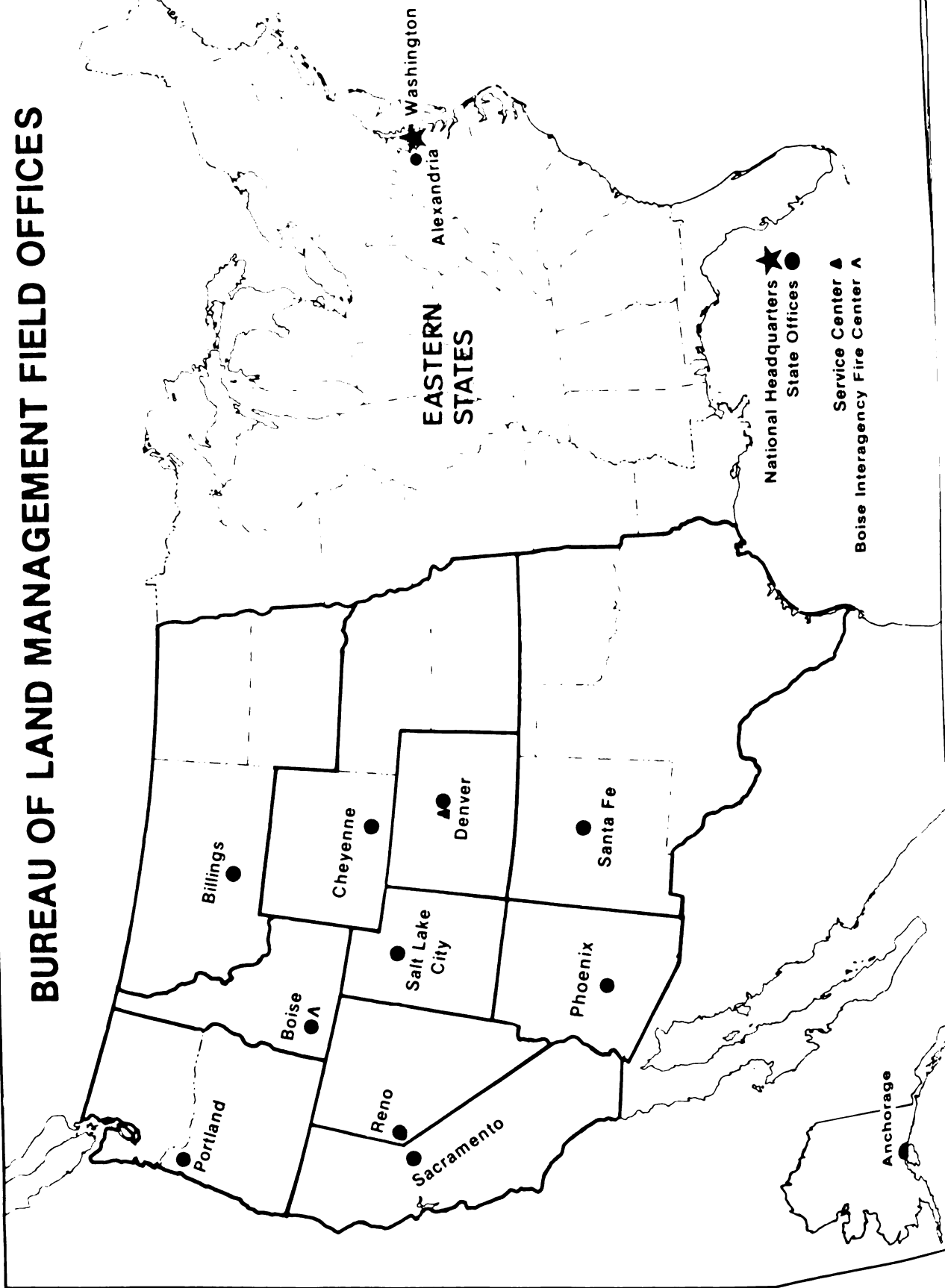
The mission of the Boise Interagency Fire Center (BIFC) is to pool interagency fire fighting resources and deploy them when wildfires grow beyond the control of local BLM, Forest Service, Bureau of Indian Affairs, U.S. Fish and Wildlife Service, or National Park Service officials. The responsible BLM official is the BLM Director-BIFC, who reports to the Assistant Director, Technical Services in the Headquarters Office. BIFC has a permanent work force supplemented by additional personnel as fire conditions dictate.



10/17/84

Illustration 2.1

BUREAU OF LAND MANAGEMENT FIELD OFFICES



REAU OF LAND MANAGEMENT
STATE OFFICES

ALASKA: 701 C Street, Box 13
Anchorage, AK 99513
Michael Penfold,
State Director
(907) 271-5555

ARIZONA: 3707 North 7th Street
Phoenix, AZ 85014
Dean Bibbes, State Director
(602) 241-5504

CALIFORNIA: 2800 Cottage Way
Sacramento, CA 95825
Ed Hastey, State Director
(916) 484-4724

COLORADO: 2020 Arapahoe Street
Denver, CO 80205
Kannon Richards,
State Director
(303) 294-7092

EASTERN STATES: 350 South Pickett Street
Alexandria, VA 22304
Curtis Jones, Director
(703) 274-0190

IDAHO: 3380 Americana Terrace
Boise ID 83706
Clar Whitlock, State Director
(208) 334-1770

MONTANA: 222 North 32nd Street
Post Office Box 36800
Billings, MT 59107
Dean Stepanek, State Director
(406) 657-6561

NEVADA: 300 Booth Street
Post Office Box 12000
Reno, NV 89520
Ed Spang, State Director
(702) 784-5311

NEW MEXICO: South Federal Place
Post Office Box 1449
Santa Fe, NM 87501
Charles Luscher,
State Director
(505) 988-6316

OREGON: 825 N.E. Multnomah Street
Post Office Box 2965
Portland, OR 97208
Wm. G. Leavell State Director
(503) 231-6274

UTAH: 324 South State Street
Salt Lake City, UT 84111
Roland Robison,
State Director
(801) 524-5311

WYOMING: 2515 Warren Avenue
Post Office Box 1828
Cheyenne, WY 82001
Hillary A. Oden, State Director
(307) 772-2111

L 99.1272.185

Managing the Nation's Public Lands



Fiscal Year 1985

Managing the Nation's Public Lands Fiscal Year 1985

This report to the Congress of the United States on the management of the Nation's public lands is submitted pursuant to requirements of the Federal Land Policy and Management Act of 1976 (FLPMA) and covers the period from October 1, 1984 through September 30, 1985.



Managing the Nation's Public Lands Fiscal Year 1985

CONTENTS

I. Introduction	5
II. Fiscal Year 1985 Progress Report	
A. Bureauwide Initiatives	
Planning	8
Automated Lands and Records System	8
Riparian Area Management	8
Hazardous Materials Management	9
BLM/Forest Service Interchange	9
B. Energy and Mineral Programs	
Oil and Gas Management	10
Geothermal Management	12
Coal Management	12
Oil Shale Management	13
Tar Sand Management	13
Nonenergy Mineral Management	14
Mineral Materials Management	15
Mining Law Administration	15
C. Land Programs	
Lands	15
Alaska Lands	17
Rights-of-Way	18
Recreation Management	18
Natural History Resource Management	20
Cultural Resource Management	20
Wilderness Review	21
D. Renewable Resource Programs	
Rangeland Management	22
Forest Management	24
Wildlife Habitat Management	25
Wild Horse and Burro Management	25
E. Support Services	
Law Enforcement	27
Cadastral Survey	28
Fire and Aviation Management	28
Engineering Services	30
Information Resources Management	30
Evaluations/Audits	31
Volunteers and Other Contributed Services	31
General Administration	33
III. Financial Management	
A. Appropriations and Expenditures	36
B. Revenues and Receipts	39
C. State and Local Shares	
Revenue Sharing	41
Payments in Lieu of Taxes	42
IV. A Look Ahead	43

Introduction

"Stretches of picturesque poverty" . . . "lands long on desert and short on water" . . . "the lands that nobody wanted" . . .

Such descriptions of Bureau of Land Management (BLM) administered lands are hardly awe-inspiring. But when images of arid and lunar landscapes come to mind. Yet while you may find such areas on public lands, you also can find lush forests, babbling trout streams, rich deposits of minerals, lush mountain pastures, prehistoric cliff dwellings, spectacular views, free-roaming wild horses, productive fields of oil and gas, and even gold mines.

When Congress enacted the Federal Land Policy and Management Act of 1976 (FLPMA), it included as the basic statement of policy that most public lands be retained in Federal ownership. Although such statements have often been interpreted to mean that the lands belong to a nebulous entity entitled the Federal Government, in fact the public lands belong to you—to each and every American.

The riches associated with the public lands should be a source of pride to each of us. Although BLM administers the lands for the people, we encourage every American to become involved in their management, to enjoy the treasures that they offer, and to protect these resources for future generations of Americans. The public lands encompass approximately 272 million acres—about one-eighth of the Nation or an area larger than the combined States of Texas, New Mexico, and Arizona. In addition, the mineral estate underlying over 300 million acres of lands administered by other agencies or private interests also comes under BLM jurisdiction. Most of this acreage is located in the western States, including Alaska, although small parcels are scattered across the Eastern States.

In accordance with the mandates of FLPMA, these lands are managed under the principles of "multiple use and sustained yield." Congress recognized the special values of these lands in the policy section of the Act: "The public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use;"

FLPMA, Sec. 102(a)(8))

At the same time, Congress required that:

"The public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands . . ."

(FLPMA, Sec. 102(a)(12))

As these statements indicate, the public lands are a huge storehouse brimming with rich resources. The Nation is turning to this storehouse to meet its growing needs for energy, food, timber, minerals, water, wildlife, wilderness, and recreation. What has it found?



Photo by Jon Wesley Searing, BLM Montrose District Office

Stark and arid, yet home to pronghorn antelope, the Adobe Badlands Wilderness Study Area is a unique landscape in western Colorado

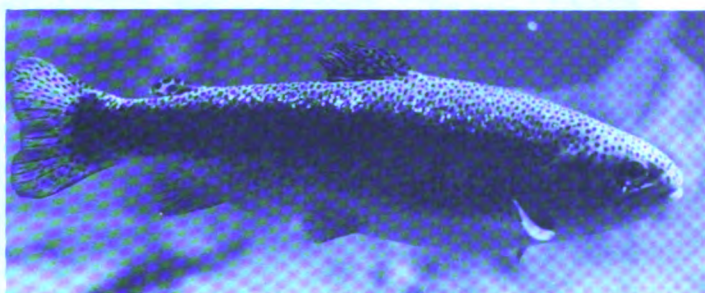


Photo by Bob Anderson, BLM California State Office

typical oil rig rises above public lands in northeast Wyoming



their habitat with the Trans Alaska pipeline



This rainbow trout is only one of many kinds of fish sharing the 86,000 miles of streams on public lands

Photo by Joe Ross, BLM Las Vegas District Office

- about 1.4 billion barrels of proven oil reserves
- approximately 12.5 trillion cubic feet of proven natural gas reserves
- 10 million animal unit months of forage to support about 4.3 million head of domestic livestock
- the major portion of the undiscovered but geologically predictable domestic deposits of aluminum, antimony, beryllium, bismuth, cadmium, chromium, cobalt, copper, fluospar, lead, manganese, mercury, molybdenum, nickel, platinum group metals, silver, tungsten, and vanadium
- almost 8 million acres of commercial forest land with a producing capacity of about 1.4 billion board feet each year
- about 80 percent of the Nation's oil shale
- all 11 of the Nation's major tar sand sites
- thousands of unique recreational areas, including 15 Wild and Scenic Rivers, 20 National Trails, 34 Outstanding Natural Areas, almost 1,500 developed recreation sites, and thousands of areas open to a wide variety of recreational uses
- in the Western States alone, about one-third of the Nation's total coal supply, plus substantial Eastern coal reserves

- more than 25 million acres with wilderness characteristics, including about 369,000 acres of designated wilderness
- some 35 percent of the Nation's uranium reserves
- more than 320 archaeological and historical sites recorded in the National Register of Historic Places, 400 sites pending entry on the Register
- world class deposits of phosphate, sodium, lead, zinc, and potash
- habitat for one out of every five big game animals in the United States, including many caribou, brown and grizzly bears, desert bighorn sheep, moose, mule deer, and antelope
- nearly 86,000 miles of streams containing trout, salmon, and other sport fish—enough to encircle Earth three and one-half times
- prospective sources of geothermal energy on more than 55 million acres, plus 2 million acres of known geothermal resource areas
- approximately 90 percent of all wild horses and burros managed, protected, and controlled under the Wild Free-Roaming Horse and Burro Act of 1972

The magnitude and value of these resources, along with the high potential for conflicting demands and u

Like BLM issues some of the most pressing and exciting domestic resource policy issues facing the Nation. One of the most visible ones are recreation, wild horse and burro management, onshore oil and gas development, energy facility siting and transcontinental pipelines, wilderness study and designation, coal development, hazardous waste disposal, timber production, and availability of land for urban development. Just as the resources overlap on the public lands, the issues interrelate so that a change in the management of one resource will impact the management of another. BLM has developed and implemented a management system to meet its multiple use mandate to guide its decisions and actions:

- a planning and decisionmaking process that balances alternative uses, includes public participation, and directs BLM's implementation activities;
- implementation of land use plans, particularly by making on-the-ground improvements that increase productivity and resource values on the public lands;

- monitoring of resource conditions on the public lands to determine the effectiveness of a wide range of activities; and
- service, operations, and maintenance activities to meet the public's needs and to provide cost effective protection of existing investments.

This management system is designed to resolve many of the conflicting demands placed upon the public lands and to facilitate the development of needed resources while protecting other resource values from inadvertent damage or destruction. It is also designed to reflect the needs and desires of the American public.

As an American, you have an important role in public land management. BLM encourages you to learn more about public lands, to become involved in their management, and to enjoy **your** lands. The following pages will give you a good idea of public land management during Fiscal Year 1985, and of the issues and initiatives BLM faces during Fiscal Year 1986. For more information about BLM and the public lands, please feel free to contact your local BLM office.



Participation with those interested in public lands is a vital part of BLM's planning process

Photo by Jon Wesley Sering, BLM Montrose District C



The Dolores River in Colorado provides one of many recreational opportunities on public lands

II. Fiscal Year 1986 Progress Report

A. Bureauwide Initiatives

Planning

Did you know . . . it takes about 2 years to prepare a resource management plan!

Planning brings people together, and BLM relies upon its planning process to address, with public participation, land use management issues. Through planning, BLM seeks to accommodate increasingly competitive demands for the public lands while protecting and ensuring their long-term productivity.

Sixteen resource management plans (RMP) were approved by the end of Fiscal Year 1985. An additional 25 RMP's were available for public review as draft plans. With an increasing number of plans completed and many others near completion, BLM is placing additional emphasis on plan implementation, monitoring, and maintenance. One part of this emphasis is a new course called "Using the Plan," which BLM initiated in 1985 at its Phoenix Training Center.

During Fiscal Year 1985, BLM also developed a series of program-specific guidelines to improve the content, program coverage, and comparability of future RMP's and plan amendments. The guidelines for the renewable resource, lands and rights-of-way, nonenergy leasable minerals, acquisition, and fire management programs are scheduled for implementation in early Fiscal Year 1986. The guidelines for other programs are scheduled for review as drafts by BLM field offices, other Federal and State agencies, and interested members of the general public.

Automated Land and Mineral Record System (ALMRS)

Did you know . . . if implemented, ALMRS would substantially free personnel from the manual records and processes used in some offices since the late 1700's to handle land sales and permits, rights-of-way, mineral leases, mining claim records, and other such actions.

As currently conceived, the ALMRS project would automate many records basic to Federal land management. The project represents a long-term commitment to a new way of doing business and builds on a variety of previous efforts to automate portions of the Federal records. It would streamline day-to-day operations, provide faster case processing, and allow quicker response to the public's requests for information. The initial investment in computerization is anticipated to yield significant long-term cost savings and improved service in comparison to the current way of doing business. If



A coordinated resource management planning field tour brings representatives from BLM and interested public land users together in the Gold Buttes/Virgin Valley area in Nevada

ALMRS is not implemented, BLM will undertake a major restoration and preservation project to protect these priceless records.

During Fiscal Year 1985, ALMRS work centered life cycle management analysis. In 1986 BLM will continue the first stage of project analysis and identify the most appropriate design and implementation method for the ALMRS project. If the project is approved, by the early 1990's the project should complete its mission as stated in the ALMRS concept document: "To develop and implement an efficient system for the recording, maintaining, and retrieving land description, ownership, and use information in support of Federal programs and public users of such records."

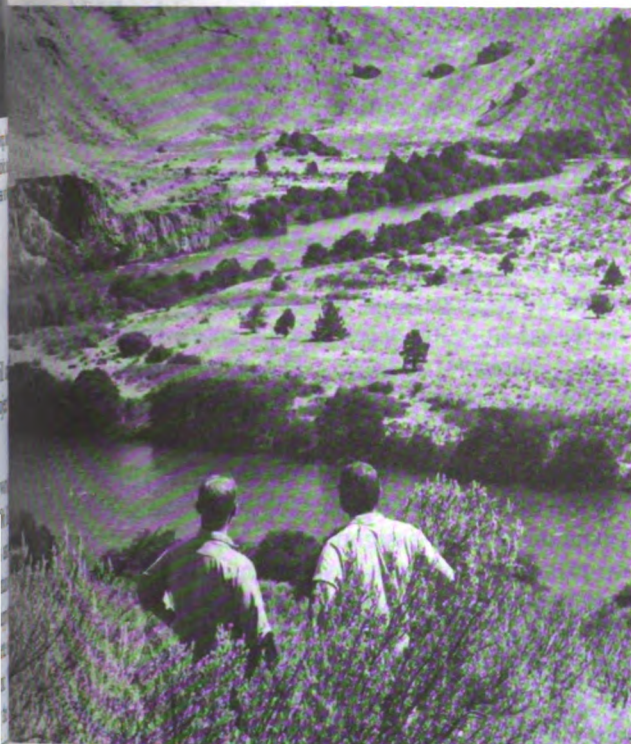
Riparian Area Management

Did you know . . . riparian areas constitute less than one percent of the 177 million acres of public lands in the Western States, yet are among the most productive and important ecosystems present.

Riparian areas—the green zones that separate aquatic from terrestrial ecosystems—affect essentially all other resource uses and values on the public lands. Healthy riparian systems filter and purify water as it moves through the zone, reduce sediment loads and enhance soil stability, moderate climatic extremes in adjacent

as, contribute to aquifer recharge, enhance the stability and amount of base water flow, and provide a diversity of plant species and habitat for animals.

During Fiscal Year 1985, BLM published a draft riparian area management policy that outlines the agency's philosophy of and commitment to managing these areas. It provided a definition for riparian areas that would apply to different geographic areas, communicated BLM's long-term commitment to the management of riparian areas as unique public land resources, recognized the function of soil, water, and vegetation as components of riparian areas, and outlined the benefits from proper management of these areas. BLM is reviewing the public comments received on this draft.



Hazardous Materials Management

Did you know . . . every year our Nation produces more than one ton of hazardous waste for every man, woman, or child in America.

Hazardous materials management is a program that encompasses most other BLM programs, including lands; minerals; forestry; range; soil, water, and air; as well as engineering and resource protection. The goals of the program include:

- protection of the health and safety of the public, Federal land users, neighbors, and BLM employees, as well as protection of the environment and natural resources;

- compliance with applicable Federal and State laws, regulations, orders, etc., within the context of BLM's statutory mission as a Federal natural resource manager; and
- cleaning up past problems, controlling current problems, and minimizing future problems of hazardous materials on public lands in a cost-effective manner.

During Fiscal Year 1985, program activities for hazardous materials management were initiated in all BLM State Offices. Field officials responded to and controlled nearly 50 emergency conditions on the public lands.

Other significant accomplishments include contracting for 17 preliminary site assessments and 4 site investigations on the public land sites with the highest potential for hazardous waste contamination; improving inventory procedures; reducing Federal liability for private, State, and local waste activities; and initiating action to get more than 30 public land users to assess and control hazardous waste contamination that occurred during their use/tenure on the Federal lands. These actions represent some of BLM's investment in future hazardous materials site cleanup on public lands, based on developing priorities.

Increased public, employee, and management awareness of the hazardous materials management problem and the risks and costs involved; improved waste control procedures; expanded personnel training; and development of legal compliance capabilities to meet the newly amended laws represent BLM's investment in future program effectiveness.

Liability control policies instituted by several BLM programs (especially Lands and Rights-of-Way), hazardous waste inventory, and a videotape on employee safety in field contacts with hazardous wastes represent several of the Bureau's investments in future Federal cost control. BLM is working with the Environmental Protection Agency to further control costs on Federal lands.

BLM/Forest Service Interchange

In January 1985, BLM and the Department of Agriculture's Forest Service (FS) began working on a proposal to Congress to transfer approximately 35 million acres of Federally managed lands and related program responsibilities between BLM and FS. The joint analysis conducted on this proposal included land acreage, numbers of personnel, office locations, and related program responsibilities.

In June, the Agencies released for public review draft documents summarizing the Interchange proposal on

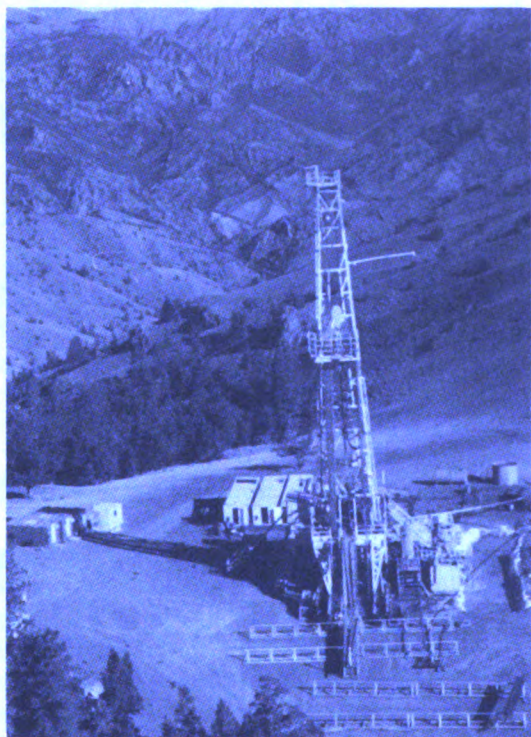
national and State levels and the legislative concepts to be included in the proposal to Congress. Approximately 2,350 respondents commented on various aspects of the proposal.

The Agencies are now considering these public comments as they develop a legislative proposal to be forwarded to Congress and analyze possible impacts of the Interchange in a legislative environmental impact statement.

B. Energy and Mineral Programs

Oil and Gas Management

Did you know . . . there may be more crude oil and natural gas yet to be found in the United States than has been produced since oil was first discovered 120 years ago.



This exploratory oil well in Wyoming has no road access to the outside world — all equipment, supplies, and waste materials are brought in and taken out by helicopter

Oil and Gas Leasing

The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947, as amended, give BLM responsibility for oil and gas leasing on about 600 million acres of public lands and national forests, and private lands where mineral rights have been retained by the Federal Government. Both competitive and noncompetitive oil and gas leasing are covered in the Act.

During Fiscal Year 1985, approximately 9,700 leases covering about 13.9 million acres of Federal land were issued, including 1,200 leases covering 447,000 acres issued by competitive bidding, 2,000 leases covering 3.2 million acres by over-the-counter leasing, and 6,500 leases covering 10.3 million acres issued under the simultaneous oil and gas leasing system.

At the end of Fiscal Year 1985, approximately 117,000 leases covering 126 million acres were in effect. Even though 2,000 more leases were issued in 1985 than in 1984, the number of lease terminations and relinquishments outstripped this increase so that by the end of Fiscal Year 1985, there were approximately 5.4 million fewer acres under lease than at the beginning of the year.

Based on a market analysis prepared by BLM and the low level of interest expressed by industry for leasing lands in the National Petroleum Reserve, Alaska (NPR-A), no competitive lease sale was held for the NPR-A in 1985.

In order to prevent lands in Alaska from being leased in parcels so small as to frustrate attempts at development of their oil and gas potential, the minimum size parcel that could be applied for under noncompetitive lease in the Non-North Slope portion of Alaska was increased to 2,560 acres or four entire contiguous sections, whichever is larger. This final rulemaking was published January 15, 1984, and became effective on February 14, 1985.

During Fiscal Year 1986, as in 1985, BLM will work toward eliminating any backlog of pending lease actions, particularly lease assignments. Emphasis will be placed on processing of lease assignments on which development activity exists.

Oil and Gas Operations

On March 22, 1985, BLM announced a partial suspension of its regulations relating to the inspection of operations and the enforcement of applicable requirements on onshore Federal and Indian oil and gas leases and invited public comments on needed revision to the regulations. This action was taken in response to comments received at public meetings held to review the final regulations, issued effective October 22, 1984, to implement the Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA).

The objective was to identify any refinements that should be made in the regulations so that prudent companies can operate in a business-like manner while providing BLM officials with the necessary discretion and enforcement authority to assure that operations conform with the intent of the various mineral leasing acts and FOGRMA. A FOGRMA Task Force was established for this purpose.

In a related matter, the Assistant Secretary for Land and Minerals Management endorsed the Task Force's recommendation that the necessary guidance and standards, against which inspections will be made and enforcement actions taken, are to be provided in Onshore Oil and Gas Orders. As with the proposed revisions to 43 CFR 3160, this effort also will provide ample opportunity for public participation. The highest priority Orders to be developed and issued are those for the Security, Oil Measurement, and Drilling Operations.

A major provision of FOGPMA mandates establishing and maintaining training for oil and gas inspectors. Accordingly, a curriculum was developed offering two courses in oil and gas production and drilling operations. The first formal production training under the new curriculum was given in Bakersfield, California, with field instruction in the local oil fields.

Section 205 of FOGPMA authorizes the Secretary to delegate all or part of his authorities and responsibilities for inspection and enforcement activities on oil and gas operations upon written request of any State. Representatives from 20 States were invited to attend a meeting to determine their interest and discuss proposed regulations. The 10 States attending the meeting were invited to participate in developing performance standards to monitor the execution of States inspecting under delegation of authority. Additional meetings will be held during Fiscal Year 1986.

Cooperative agreements with States or Indian tribes to conduct oil and gas inspection and enforcement activities

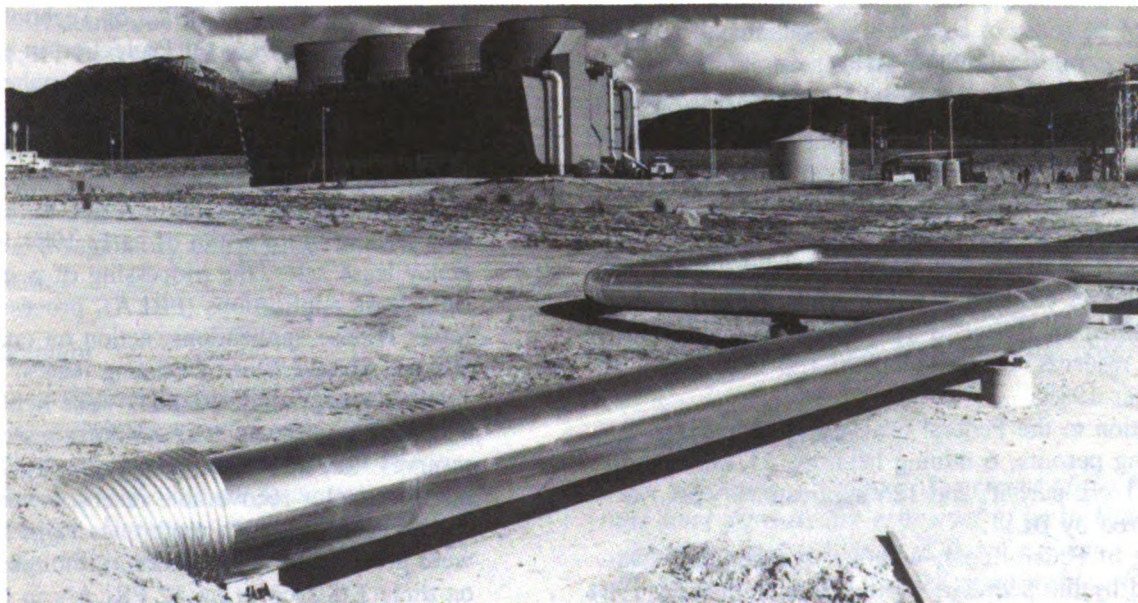
are authorized by Section 202 of FOGPMA. Several Indian tribes have expressed interest and requested training for their inspectors.

As of January 1, 1985, a total of 138,522 oil and gas leases were supervised by BLM on Federal and Indian lands, of which 21,152 were producible. Approximately 21 percent of the producible leases and 12 percent of the total leases are on Indian lands.

During Fiscal Year 1985, more than 2,200 operators were engaged actively in producing oil and gas from onshore Federal and Indian leases located in 26 States. A total of 4,100 applications for permit to drill new wells were processed. Current statistics indicate that 1,924 new wells were commenced on Federal and Indian lands, and that 1,500 were successfully completed for production.

During Fiscal Year 1985, onshore oil and gas leases generated almost \$1.1 billion in bonus, rent, and royalty payments to the Government, 50 percent (or, in the case of Alaska, 90 percent) of which is returned to the States where the production occurs. Another Interior agency, the Minerals Management Service, collects and distributes these receipts.

As of June 30, 1985, there were approximately 23,400 oil completions and 18,100 gas completions on Federal lands, and about 5,200 oil completions and 3,400 gas completions on Indian lands for a grand total of approximately 50,100 producible completions. In addition, BLM also is responsible for 7,600 service (injection/disposal) wells on Federal and Indian leases.



Flow lines and cooling towers at a geothermal unit in southwest Utah

Photo by Jerry Sintz, BLM Utah State Office

Geothermal Management

Did you know . . . electricity currently produced from geothermal resources on Federal lands could supply San Francisco with enough energy to meet all of its residential needs.

The Geothermal Steam Act of 1970 provides BLM authority to issue leases of public, withdrawn, and acquired lands administered by the Departments of the Interior and Agriculture. During Fiscal Year 1985, the number of Federal geothermal leases in production jumped from 12 at the beginning of the year to 26 by the end of the year.

A total of 32 leases covering 57,000 acres were leased competitively and 54 leases covering 89,000 acres were issued noncompetitively. At the end of Fiscal Year 1985, 1,262 geothermal leases covering 2.1 million acres were in effect, of which 26 were in production and an additional 39 were capable of production but pending construction of power plants.

A rulemaking published in September 1985 and effective on December 26, 1985, increased the amount of acreage that could be held under geothermal lease from 20,480 acres to 51,200 acres per State. The old limitation was widely accepted as being a major barrier to faster development of geothermal resources.

Coal Management

Did you know . . . 570.9 million tons of coal have been produced under Federal coal leases during the past 5 years, resulting in \$320.4 million in royalty payments to Federal and State governments.

Coal Leasing

The United States owns 60 percent of coal reserves in the West. Most of these Federal coal reserves are concentrated in five western Federal coal production regions located in Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming.

At the end of Fiscal Year 1985, 618 outstanding Federal coal leases covered 918,861 acres of Federal lands and contained an estimated 17.9 billion tons of recoverable coal reserves. Of these leases, 150 were active in Fiscal Year 1985.

In addition to the Federal coal leases, 7 inactive prospecting permits, 6 mining licenses, 51 exploration licenses, 1 use permit, and 126 applications were administered by BLM.

Leasing of Federal coal, with a few exceptions, was suspended by the Secretary of the Interior in early 1984 pending a detailed and comprehensive review of the Federal coal leasing program. A draft supplement to the

1979 Coal Programmatic Environmental Impact Statement (EIS) was released for public comment in February 1985.



A truckload of coal leaves the Blackthunder mine in northeast Wyoming

This document assessed the potential effects of four Federal coal leasing alternatives. The preferred action included would continue the 1979 program, as modified by rule changes in 1982 and by rule, policy, and procedural changes in response to the report from the Commission on Fair Market Value Policy for Federal Coal Leasing and the Office of Technology Assessment report on Environmental Protection in the Federal Coal Leasing Program. The final EIS supplement was issued in October 1985, and a decision to continue the 1979 program as modified or to select some other alternative is expected in late 1985.

Coal leasing actions not affected by the Secretary's coal leasing moratorium of early 1984 include emergency lease sales, the processing of pending preference right lease applications (PRLA), processing coal exploration license applications, action on coal exchanges, and the management of existing leases.

Nine emergency lease sales were held covering 2.8 acres and containing 10.2 million tons of recoverable reserves. Six new leases containing 1,473 acres and 1 million tons of recoverable reserves were issued during Fiscal Year 1985. No preference right lease applications were processed to completion, although work continued on three EIS's covering 12 PRLA's in Colorado. Five PRLA's were relinquished by the applicants during Fiscal Year 1985.

Departmental officials also continued discussions with several environmental organizations concerning PRLA policies and procedures for determining commercial quantities and compliance with the National Environmental Policy Act. Interior officials remain optimistic that these discussions will result in an agreement which will permit the resumption of processing for the 121 pending PRLA's.

Coal Operations

In Fiscal Year 1985, BLM administered 618 producing Federal coal leases. Coal production from Federal lands has increased from 7.4 million tons in 1970 to 62.2 million tons in 1985, which is about 18.9 percent of total United States production. Federal royalties collected by the Department and verified by BLM, totaled 104.6 million during Fiscal Year 1985.

During the year, BLM developed final nationwide guidelines for implementation of Section 2(a)(2(A)) of the Mineral Leasing Act (lessee qualification provisions) and for logical mining units (43 CFR 3487). Guidelines such were developed for coal lease readjustments.

Also in Fiscal Year 1985, BLM established the Solid Leasable Minerals System (SLMS) by merging the Automated Federal and Indian Leasable Minerals System and the Automated Coal Lease Data System. All producing and nonproducing leases are continually monitored with the lease data and statistics in SLMS to ensure timely readjustments of the lease terms.

In Fiscal Year 1986, a significant increase is expected in the number of Federal coal leases subject to certain Federal Coal Leasing Amendment Act of 1976 provisions (43 CFR 3480) because many leases issued prior to August 1976 will come due for readjustment. During Fiscal Year 1986, 47 Federal coal leases will be readjusted, bringing the total number of leases subject to CLAA to 385 leases by the end of Fiscal Year 1986. As readjustments occur on the anniversary dates of the remaining 234 leases not yet subject to readjustment, the operations workload will continue to increase in order to ensure statutory and regulatory compliance, even if few new leases are issued.

Oil Shale Management

Did you know . . . approximately 731 billion barrels of oil (enough to satisfy America's needs for about 125 years) could be recovered in commercial quantities from the Green River oil shale formation with existing technologies. However, at the present time the cost of extracting the oil exceeds its value.

BLM has the Federal management responsibility for 100 percent of the oil shale resource that is concentrated

in the Green River formation in northwestern Colorado, northeastern Utah, and southwestern Wyoming. The reserves in this 25,000-square mile formation are estimated to contain nearly 2 trillion barrels of oil shale.

At the end of Fiscal Year 1985, the future of the U.S. Synthetic Fuels Corporation (SFC) was uncertain. If the Corporation were abolished, the absence of possible loan or price guarantees might dampen the prospects for any acceleration in private oil shale development to the commercial scale. One of the Federal prototype leases (C-b in Colorado) was issued a tentative letter of intent for loan and price guarantees from the SFC in September 1985. If that letter of intent were withdrawn, it is doubtful that C-b would develop their lease to the extent that was originally planned.

Development activities have come to a virtual standstill on the existing four prototype tracts. Tract C-a is under formal suspension because of a pending off-site lease application. Although C-b had been under preliminary development, operations for the past 2 years have been at a virtual standstill because of processing problems with the hot shale.

Unitized tracts U-a and U-b have performed minimal development activities to date because of a dispute between the State of Utah and the Ute Indians over jurisdiction of the leased lands. Because the first 10-year anniversary of their lease (which will require the first installment payment of minimum royalties) is in April 1986, it is expected that U-a and U-b will apply for a formal suspension sometime in 1986.

In support of the proposed permanent oil shale program, BLM prepared EIS's and resource management plans for the Piceance Basin in Colorado and the Book-cliffs Resource Area in Utah. Published in 1985, these planning documents are designed to assist BLM in identifying multiple uses of the Federal resources within the planning boundaries of these two geographical areas. Among the identified multiple uses were priority management areas for oil shale development.

BLM is not anticipating any new oil shale program efforts in the foreseeable future. Monitoring of existing tract activities and inspection and enforcement visits will continue to be performed by the Bureau to ensure that the terms of their leases are being met and that all applicable State and local laws are being observed.

Tar Sand Management

Did you know . . . about 70 percent of the Nation's tar sand deposits are estimated to be in Utah, principally on Federal lands. Current estimates are that 2 billion barrels are deemed recoverable with today's technology.

Under the provisions of the Combined Hydrocarbon Leasing Act of 1981, holders of preexisting oil and gas leases and valid mining claims in Special Tar Sand Areas (STSA) had a limited opportunity (ending November 16, 1983) to obtain the tar sand rights thereunder noncompetitively by applying to convert their existing oil and gas leases/valid mining claims to combined hydrocarbon leases. The Act also provides for a competitive leasing program.



An oil shale formation near Rifle, Colorado.

Photo by Bob Anderson, BLM California State Office

The Act requires that all application conversions demonstrate "reasonable protection of the environment." In continued support of this requirement, one final EIS (P.R. Springs Special Tar Sand Area) was completed and a final decision is expected to be issued during the first quarter of Fiscal Year 1986. Also, four environmental assessments (Raven Ridge-Rim Rock, San Rafael Swell, Asphalt Ridge-White Rocks, and Sunnyside STSA's) were completed.

Fourteen oil and gas leases have been converted to 8 combined hydrocarbon leases. These leases, located in the Sunnyside, Raven Ridge-Rim Rock, and Asphalt Ridge-White Rocks STSA's, cover 13,232 acres.

Regulations covering Paying Quantities and Diligent Development of Combined Hydrocarbon Leases were developed during Fiscal Year 1985. Final rulemaking governing these two major phases of the conversion program and competitive program are to be issued during Fiscal Year 1986.

Nonenergy Mineral Management

Did you know . . . more lead is produced from Federal leases in Missouri than anywhere else in the country . . . and 85 percent of all potash production in the United States occurs on Federal leases in the Carlsbad, New Mexico, area.

The majority of nonenergy mineral leases include phosphate, sodium, potassium, lead, zinc, gold, silver, sand and gravel, and uranium. A few leases for other minerals including iron ore, molybdenum, barite, quartz, copper, feldspar, fluor spar, and wavellite, among others, also exist. Table A summarizes the significant nonenergy mineral leases. During Fiscal Year 1985, 10 leases were issued, 96 producing nonenergy mineral leases were monitored, and 29 prospecting permits were issued.

A lengthy effort to totally revise the 43 CFR 3500 regulations has been completed and the rulemaking is scheduled to become effective in January 1986. The new mineral-specific format provides a logical order of regulations with understandable language describing the special provisions peculiar to each mineral as dictated by law. This will facilitate understanding by the interested public and mining industry as well as those entrusted with managing and regulating the development of the Nation's mineral resources on Federal lands. In addition, the regulations include provisions for mining claimant preference right leasing and other mineral leasing within the White Mountains National Recreation Area in Alaska.

BLM's new Solid Leasable Minerals System (see reference under Coal Operations) provides lease data and statistics for monitoring producing and nonproducing leases to ensure compliance with regulations and lease-term requirements as well as timely readjustments of the lease terms.

**Table A. Nonenergy Mineral Leases
Administered by BLM
as of September 30, 1985**

Mineral	Leases Issued	Producing Mines	Prospecting Permits
Phosphate	0	20	0
Sodium	6	18	5
Potassium	4	45	6
Lead/Zinc	0	13	10
Gold	0	0	8
Silver	0	0	0
Uranium	0	0	0
Totals	10	96	29



A sand and gravel operation near Montrose, Colorado

Photo by Bob Anderson, BLM California State Office

Mineral Materials Management

Did you know . . . more than 10 million cubic feet of sand and gravel were produced from public lands during Fiscal Year 1984.

Pursuant to the Act of July 31, 1947, as amended (30 U.S.C. 601 et seq.), and the rules found in 43 CFR Group 3600, BLM disposes of mineral materials such as sand, stone, gravel, pumicite, cinders, and petrified wood from the public lands. Mineral materials are disposed of either by sale to the general public or by free use permit to qualified governmental and nonprofit entities.

In Fiscal Year 1985, BLM issued approximately 1,225 sales and free use permits, representing materials valued at approximately \$13 million. These materials play an important role in roadbuilding and energy and industrial development in the Western States. During Fiscal Year 1986, BLM will continue to meet the public demand for mineral materials by placing the issuances of the sales and permits as a top program priority.

Mining Law Administration

Did you know . . . since the passage of the Mining Law of 1872, approximately 3 million acres of public land have been patented under its provisions. In comparison, homesteading of agricultural lands has resulted in patenting approximately 271 million acres since 1862.

Timely processing of mineral patent applications remained a BLM priority during Fiscal Year 1985. As a result, 4,261 acres of mineral land passed into private ownership as patented lode or placer mining claims.

Nine hundred eighty acres of nonmineral land were patented under the millsite provisions of the mining laws for use reasonably incident to mining and milling operations. Valuable deposits of precious metals, base metals, mica, vermiculite, bentonite, tar sands, turquoise, quartz for metallurgical flux, and uncommon varieties of building stone were discovered by mining claimants and verified by BLM prior to patent issuance.

Since the recordation of all mining claims with BLM was mandated by FLPMA, approximately 2.03 million mining claims or sites have been recorded, of which about 1.2 million are still being held by the performance (and filing) of assessment work or through a notice of intention to hold. During Fiscal Year 1985, 94,603 mining claims were recorded initially, a decrease from the previous year indicative of the continuing slump in the locatable minerals industry. In April 1985, the Supreme Court ruled that the conclusive presumption of abandonment imposed for failure to file in a timely manner the documents required under FLPMA was not an unconstitutional exercise of congressional authority.

Surface management regulations in effect on the public lands prompted the filing of approximately 398 plans of operation and 2,107 notices in Fiscal Year 1985.

Reviews of the activities proposed by mining claimants ensured that no unnecessary or undue degradation would result. Field checks by BLM personnel monitored compliance with approved operations.

C. Land Programs

Lands

Did you know . . . the total public land acres patented (70,362,925) for stockraising homesteads since 1917 exceeds the acreage of Connecticut, Vermont, Rhode Island, Maine, New Hampshire, Massachusetts, New Jersey, Maryland, and West Virginia combined.

During Fiscal Year 1985, BLM's Lands program focused on:

- responding to State and local government requests for acquisition or use of public land for community expansion and recreation or public-purpose activities;
- modifying land exchange processing to eliminate unnecessary requirements and streamline procedures;
- accelerating programs of State and private land exchanges to foster improved management of both public and non-Federal land;
- transferring Federal land to States to satisfy indemnity (in-lieu) land entitlements that remained outstanding;
- producing regulations to clarify and simplify land sale procedures; and
- accelerating the processing of desert land entry applications to reduce the backlogs.

The Recreation and Public Purposes (R&PP) Act authorizes the Federal Government to lease or sell public land at less than full fair market value to State and local governments and nonprofit groups for recreation and public purpose needs. In Fiscal Year 1985, BLM processed 270 R&PP applications involving 36,357 acres of public land. Applications continue to be filed at a rate of approximately 90 per year.

Land exchanges, i.e., trading public land for State and private land, provide opportunities to simplify ownership patterns, improve respective management programs, and meet both public and private needs. The amount of acreage conveyed through exchanges has climbed steadily from almost 70,600 acres in 1981 to 439,000 in 1984. In 1985, 64 exchanges conveyed 341,204 acres of public land to State and private interests in return for 462,538 acres of their land.

As Western States were admitted to the Union, they were granted Federal land for the support of common schools. In many cases, however, land due the States had been preempted by settlement, mining claims, and Federal programs. Accordingly, Congress authorized the States to make indemnity (or in-lieu) selections for the land "lost." Conveyance of such in-lieu land to the Western States has been accelerated rapidly. Between 1977 and 1980, only 3,859 acres were transferred; from 1981 through 1984, a total of 354,886 acres were transferred. With much of the work now accomplished, 1985 transfers totaled 4,792 acres. Only about 165,000 acres of the original entitlement remain unassigned. BLM will

process the balance as the States present their applications.

Processing of Desert Land Act applications constituted a major workload in the States of Idaho and Nevada during Fiscal Year 1985. BLM processed more than 447 applications during the year, reducing to 1,183 a backlog that once involved more than 6,000 cases.

BLM continued to make selected public land available for sale to allow for community expansion and other purposes. Most of the land sold consisted of small, isolated parcels. Tracts are carefully selected through BLM's land use planning process to ensure that sale is appropriate. During Fiscal Year 1985, 15,710 acres of public land were sold for a total of more than \$15.5 million. Of this total, 583 acres were sold under the provisions of the Burton-Santini Act for \$7.7 million.

Withdrawal Review

During Fiscal Year 1985, the Secretary approved 13 public land orders opening 6,359 acres to surface entry, of which 4,786 acres were opened to mining. Ten withdrawals encompassing 327,131 acres were completed for such varied uses as wildlife refuges, recreation sites, historic sites, national forest lands, communication sites, archaeological sites, and dam construction and maintenance areas.

In addition, the Secretary signed five public land orders continuing the withdrawals on 33,000 acres of land withdrawn for stock driveway purposes.



Acquisitions

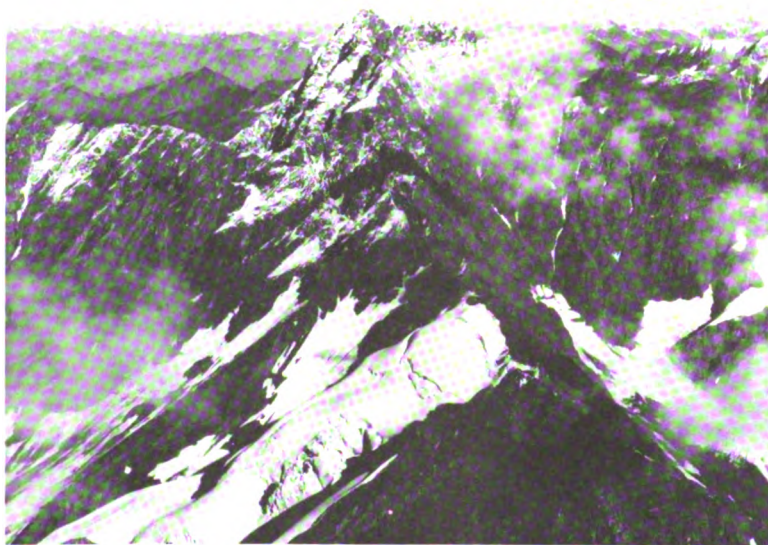
BLM has the authority to acquire lands, easements, and other rights needed for public land management under FLPMA and land valuable for recreation under the Land and Water Conservation Fund (LWCF). During Fiscal Year 1985, BLM acquired a total of 44 easements. Of these, 73 were for the purpose of providing access to public lands for multiple uses, and the remainder provided rights for such specific projects as livestock watering facilities, fences, and communication sites. Most tracts were obtained at the appraised price, with only 16 tracts requiring a purchase offer above the appraised value. One condemnation action was initiated during the year.

In addition, six tracts totaling 1,387 acres were purchased with LWCF funds.

some functions, such as firefighting, remains with the Bureau on approximately 150 million acres.

As provided by the Alaska National Interest Lands Conservation Act (ANILCA), the State can select lands until January 4, 1994. During Fiscal Year 1985, BLM conveyed more than 5 million acres to the State, bringing the total conveyed to 84 million acres or about 80 percent of Alaska's entitlement. This includes patent to 26 million acres and tentative approval for patent to an additional 58 million acres.

During the year, BLM also conveyed more than 1 million acres to Alaska Native corporations under the Alaska Native Claims Settlement Act of 1971. As of September 30, 1985, interim conveyances and patents have been issued for 34.5 million acres (80 percent of their entitlement).



Alaska Lands

Did you know . . . the National Petroleum Reserve-Alaska is important not only for oil and gas development but for providing habitat for 20 percent of the world's black brant (a small goose) population, large numbers of caribou, and the largest concentration of peregrine falcons in the Nation.

In 1958, BLM administered nearly 300 million acres in Alaska—an area larger than the States of California and Texas combined. In the 28 years since, land has been transferred to the State, Natives, and other Federal agencies so that today approximately 95 million acres remain in the public domain. When the title transfer program is completed, BLM will manage approximately 100 million acres throughout Alaska. Responsibility for

To date, approximately 8,260 Native allotment parcels remain pending further action under the 1906 Native Allotment Act. Also on file and awaiting completion are 709 settlement claims and other applications for title transfer of other small parcels. During Fiscal Year 1985, BLM took action on 722 Native allotment parcels and closed 75 settlement cases. Adjudication of these settlement claims and other applications still must be completed. All approved parcels will require boundary staking, survey, and preparation and approval of the survey plat before the patent can be prepared and issued.

During the year, BLM also completed the transfer of the Alaska Railroad to the State of Alaska, as directed by the 1983 Alaska Railroad Transfer Act.

Land settlement areas opened in the 1980's for home,

headquarters, and trade and manufacturing sites are drawing national interest. In addition, some lands previously closed to mineral leasing and mining have been opened for mineral entry under the general mining law and the 1920 mineral leasing act. Alaska settlement laws will expire in October 1986.

A greater emphasis is being placed by the State of Alaska and Native corporations on receiving patent to lands being conveyed. A patent plan process now is being implemented to provide for increased patenting of land to these entities. The process involves the completion of survey of all inholdings such as Native allotments, mining claims, and Alaska Settlement Claims within a geographic area so that land patents can be issued.

Exchanges of lands were successfully concluded with the fiscal year with the State of Alaska, Native Corporations, and other Federal agencies.

Management direction for BLM's Steese National Conservation Area and White Mountains National Recreation Area is being established through the development of resource management plans.

Rights-of-Way

Did you know . . . prior to the passage of FLPMA, more than 30 different laws affected various types of rights-of-way applications. Since the passage of FLPMA, this number has been reduced to only two authorities.



These power lines, owned by the San Diego Gas and Electric Company, cross BLM lands near El Centro, California, under a right-of-way permit

Through the granting of rights-of-way, individuals and other legal entities such as local and State governments can obtain access or other rights to the use of public lands. Communication facilities, ditches, canals, power lines, pipelines, railroads, trams, and any other necessary transportation or other systems or facilities may be located on public land rights-of-way.

During Fiscal Year 1985, BLM authorized four major pipelines and two major transmission lines. In addition, 3,874 smaller rights-of-way, consisting of 2,703 FLPMA-authorized rights-of-way and 1,171 Mineral Leasing Act-authorized rights-of-way, were granted.

Cost recovery regulations for rights-of-way filed under the 1920 Mineral Leasing Act became final in February 1985. Draft regulations for cost recovery for rights-of-way filed under FLPMA have been extensively reviewed during 1985 to make them fit the reasonableness criteria mandated by Section 304(b) of FLPMA and directed by the 10th Circuit Court of Appeals.

A study involving an evaluation of right-of-way rental charges was completed this year in cooperation with the Forest Service. A proposed rental valuation system was published in the *Federal Register* in January 1985. Approximately 50 comments were received and evaluated, and are being considered in drafting the proposed rulemaking during Fiscal Year 1986.

Recreation Management

Did you know . . . in Fiscal Year 1985, more than 51 million recreation visits (245 million visitor hours) were made to the public lands managed by BLM.

The effort to develop close working relationships with State and local agencies and private individuals and groups through the implementation of cooperative management agreements (CMA's) continued during Fiscal Year 1985. Twenty-two new CMA's were signed giving the recreation program a total of 41 agreements.

BLM and the National Pony Express Association (NPEA) signed a CMA stating that the NPEA will assist in patrol, cleanup, and identification and marking of trail segments. An agreement also was signed between BLM's Las Vegas District and the Friends of Red Rock Canyon (FORRC). The organization is a community volunteer group that has been very active in operating the visitor center and interpretive programs, contributing time and collecting donations for the Red Rock Canyon Recreation Lands near Las Vegas, Nevada.

Approximately one-fifth of BLM's volunteer services are in the recreation program. Volunteers contributed more than 100,000 hours of time with a value exceeding \$770,000. Much of this time was devoted to recreation facility construction and maintenance, and as campground hosts.

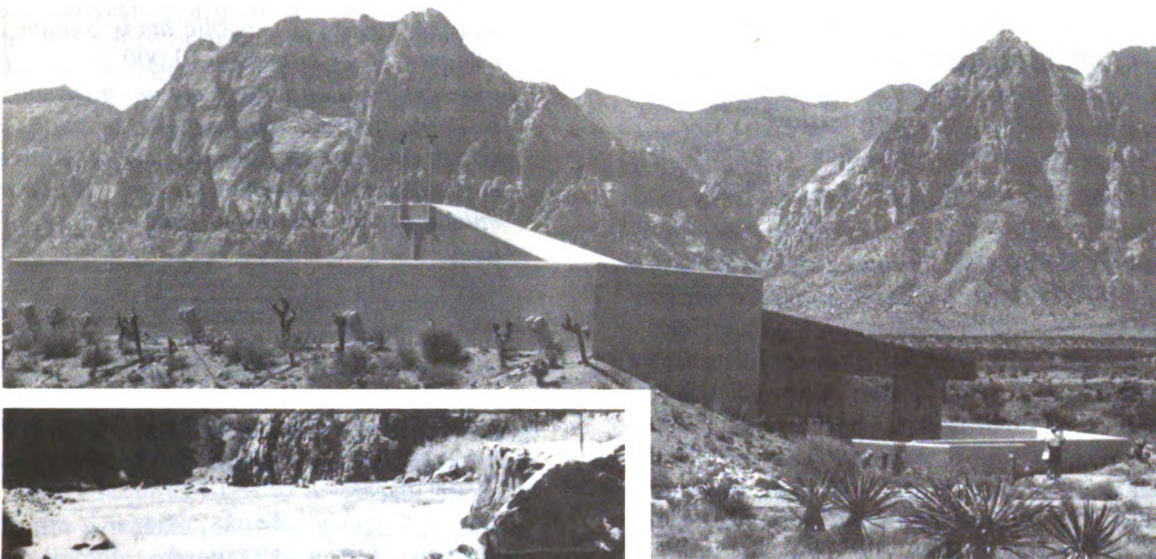


Photo by Joe Ross, BLM Las Vegas District Office

Volunteers man the visitor center at BLM's Red Rock Canyon Recreation Lands near Las Vegas, Nevada, and provide interpretive programs about the area



Running the rapids of the Gunnison River in Colorado

Photo by Jon Wesley Sering, BLM Montrose District Office

Owyhee Wild and Scenic River was designated in 1984 and the management plan for the river was completed during Fiscal Year 1985. Resource management plans for the Steese National Conservation Area and the White Mountains National Recreation Area were completed, and efforts were initiated to implement the Idaho Birds of Prey Natural Area management

There are now four National Historic Trails, two National Scenic Trails, and 14 National Recreation Trails providing approximately 1,600 miles of trail on public lands; one National Recreation Area; three National Conservation Areas; one National Scenic Area; 34 Outstanding Natural Areas; 15 Wild and Scenic Rivers, approximately 1,500 miles of which are on public lands;

375 developed recreation sites on approximately 18,800 acres; and 1,098 undeveloped recreation sites that are designated and managed for the public benefit by BLM.

A concerted effort was made in Fiscal Year 1985 to implement the new special recreation permit policy and bring all commercial users of the public lands under permit. More than 7,000 special recreation permits were issued during the year, and fees collected for these permits exceeded \$840,000.

BLM was a cosponsor and participant in the National River Recreation Symposium held in Baton Rouge, Louisiana during 1985. The agency also became a member of the National Forest Recreation Association's Long Range Planning Committee and of the National Recreation and Park Association.

Natural History Resource Management

Did you know . . . specimens from the BLM-managed Cleveland Lloyd Dinosaur Quarry in Utah are on display or used for research in 17 museums worldwide. The 10,000 boxes of professionally collected animals have produced more public exhibits than those from any other dinosaur quarry in the world.

Through its Natural History Resource Management program, BLM identifies natural areas on public lands having significant scientific and educational values; develops and implements site-specific measures to protect these areas; and facilitates use of these areas by researchers, educators, and other interested publics. Efforts are coordinated with other Federal agencies, State and local governments, and private institutions to identify types of natural areas needed for a balanced national system.

During Fiscal year 1985, 20 areas comprising more than 398,000 acres in California, Colorado, New Mexico, Oregon, and Utah were designated as Areas of Critical Environmental Concern. These designations are made to protect and manage important historic, cultural, or scenic values; fish and wildlife resources or other natural systems or processes; or to identify natural hazards.

In California, Colorado, Idaho, and New Mexico, seven Research Natural Areas containing 17,062 acres were added, bringing the number of BLM areas in the system to 65. These areas are designated to maintain natural diversity and facilitate scientific research.

In addition, three Outstanding Natural Areas totaling 5,575 acres in Colorado, Oregon, and Utah were designated.

BLM's Paleontological Resources Management program provides for both scientific research and public educational/recreational use of fossils on public lands. Several sites are of such national and international significance that they have been designated as National Natural landmarks. Many others receive lesser but regular management protection efforts. In Fiscal Year 1985, BLM entered into a joint study with the National Academy of Sciences and other agencies in order to study and develop more effective ways of managing these resources.

As a result of a Secretarial Order issued in September 1984, BLM was delegated the authority to issue and administer paleontological collecting permits on the public lands. During Fiscal Year 1985, BLM issued 56 such permits for scientific research purposes.

Cultural Resource Management

Did you know . . . public lands contain the physical evidence of an estimated 20,000 years of human history. Information collected from thousands of cultural resource sites documents the interrelationship of past settlement patterns, climatic and vegetative conditions and other environmental factors. This data offers a unique perspective on the long-term use of these lands.

The cultural resource program's primary objectives rest with identifying these resources, evaluating their relative importance, and determining whether or not management actions are appropriate for preserving unique qualities. At present, approximately 325 BLM cultural properties are listed in the National Register of Historic Places.

During Fiscal Year 1985, extensive protection work covered more than 35,000 archaeological and historic sites managed by BLM. This work included broad-scale patrol and surveillance activities designed to monitor conditions and deter vandalism, stabilizing eroding prehistoric structures, and erecting signs and fences for interpretive and protective reasons.

It is estimated that more than half of all Federally initiated cultural resource studies are being completed on BLM-administered lands. BLM issues more than 400 permits each year to institutions and universities seeking to complete cultural resource surveys and mitigation work required by law and planning commitments. Permit-related work is authorized under the Archaeological Resources Protection Act, the Antiquities Act, and the Federal Land Policy and Management Act. BLM's permit system is decentralized in nature, allowing each State Director to be responsible locally for review, approval, and monitoring of archaeological, historic, and paleontological work.



Pictographs on BLM lands in Utah

During Fiscal Year 1985, BLM continued work from previous fiscal year on a technical volume addressing the nature and utility of archaeological predictive models. The final volume, currently scheduled for release in early 1986, is intended to be useful as both a management tool and a state-of-the-art research document.

Wilderness Review

Did you know . . . BLM has 900 wilderness study areas, ranging in size from more than 300,000 acres down to a 3-acre island. All told, they include about 3 percent of the land area of the 11 Western States.

Preservation and management of wilderness became part of BLM's multiple use mandate with the passage of the Federal Land Management Policy Act (FLMPA). That Act requires BLM to review its lands for wilderness potential, conduct detailed studies on those areas having wilderness characteristics, and transmit

recommendations through the Secretary of the Interior and the President to Congress as to which areas should be designated as wilderness.

BLM completed its wilderness inventory in the Western States in November 1980. There are now approximately 900 wilderness study areas (WSA) containing about 25 million acres. These figures show an increase over those in BLM's annual report for Fiscal Year 1984, reflecting changes resulting from a U.S. District Court decision in *Sierra Club v. Watt* and a settlement with the plaintiffs in that suit.

During Fiscal Year 1985, BLM reached the 80 percent mark in completing field studies of the WSA's. Most of the resulting recommendations will be grouped on a statewide basis in each Western State for action by the Secretary by October 21, 1991.

On April 26, 1985, President Reagan transmitted to Congress his recommendations on 30 "instant study areas"—areas that had been formally identified prior to



Photo by Jon Wesley Serrig, BLM Montrose District Office

Dolores River Canyon Wilderness Study area in Colorado

July 1, 1975, as natural or primitive areas. The President asked Congress to designate four of these areas as wilderness (Great Rift in Idaho, Powderhorn in Colorado, Humbug Spires in Montana, and Scab Creek in Wyoming), and to release 26 areas that were found to lack wilderness characteristics.

BLM during Fiscal Year 1985 strengthened its management of wilderness study areas to protect their suitability for wilderness designation. Surveillance was increased, and rehabilitation efforts were undertaken to erase the impacts of unauthorized activities. A new procedure was adopted to allow an opportunity for public comment on proposed activities in WSA's.

Two BLM wilderness areas were designated by Congress during Fiscal Year 1985—Bisti and De-na-zin, both in New Mexico and totaling 27,840 acres. This brought the total acreage of BLM public lands in the National Wilderness Preservation System to 368,739 acres as of October 1, 1985.

BLM's first wilderness management plan was put into effect in November 1984 for the Bear Trap Canyon unit of the Lee Metcalf Wilderness in Montana. Management plans for five other designated wilderness areas were in preparation. Wilderness management regulations were issued and put into effect in March 1985. BLM also cosponsored the National Wilderness Research Conference held at Colorado State University in July 1985.



D. Renewable Resource Programs

Rangeland Resource Management

Did you know . . . approximately 4.4 million livestock visit public lands during an average year.

Range Management

Protection of the basic soil and vegetation resources are the foundation to sound rangeland management. Land use decisions involving livestock grazing on the public lands are considered in the context of multiple use, with the intent of maintaining and improving the lands for the present and future needs of the American people. The general goals of the rangeland management program are:

- to administer livestock grazing on the public range lands to balance use and sustain resource productivity;
- to protect and improve the rangeland resources through sound land use planning, which includes making cost-effective investment and management decisions;
- to make decisions in consultation, cooperation, and coordination with lessees/permittees, affected landowners, interest groups, individuals, and other agencies; and
- to make sure that improvements in rangelands provide multiple-use benefits.

Preparation of site-specific grazing environmental impact statements (EIS) is a significant part of land use planning. The 119 EIS's completed, including 21 completed in FY 1985, address livestock grazing on 148 million acres of public lands in 10 Western States. After an EIS is completed, allotment management plans (AMP) are prepared to identify specific on-the-ground activities to meet the resource management objectives identified during land use planning. BLM prepared 25 AMP's during Fiscal Year 1985.

Range inventory data are a basis for land use planning, for identifying and supporting needed management actions, and for establishing a baseline for detecting changes in resource condition through monitoring studies. The Soil Conservation Service cooperates with BLM in conducting soil surveys on the public rangelands. In Fiscal Year 1985, about 6.1 million acres were surveyed and 5 million acres were inventoried using the ecological site method.

Rangeland monitoring includes the collection and analysis of data on climate, actual grazing use, utilization of key forage plants, and trend in condition. During the fiscal year, 4,900 allotments were monitored.

Range improvements continue to be an important part of the range management program. Accomplishments during Fiscal Year 1985 include development of 645

water facilities; construction of 514 miles of fencing; development of 87 management facilities; treatment of 5,534 acres of vegetation; and maintenance of 120 improvement projects.

BLM and the Forest Service continue to conduct the Experimental Stewardship Program (ESP) authorized by the Public Rangelands Improvement Act of 1978. The purpose of ESP is to explore ways to improve the public rangelands through increased cooperation among all rangeland users by providing incentives for or rewards to livestock operators whose grazing management results in improved resource conditions. The agencies will report to Congress on the results of ESP and recommendations on the role of ESP in rangeland management by the end of calendar year 1985.

During Fiscal Year 1985, BLM released a report on rangeland conditions. Based on the best available information, the report showed that 5 percent of the rangeland is in excellent condition, 31 percent is in good condition, 42 percent is in fair condition, and 18 percent in poor condition. A general pattern of gradual improvement in range condition can be seen by comparing the 1984 information to reports dating back to 1975 and earlier (see Table B).

Table B. Comparative Percentages of Public Rangeland Condition, 1936—1984

Year	Percent by Condition Class			
	Excellent	Good	Fair	Poor or Bad
1936	1.5	14.3	47.9	36.3
1966	2.2	16.7	51.6	29.5
1975	2.0	15.0	50.0	33.0
1984	5.0	31.0	42.0	18.0

The improvement in range condition is attributed to (1) decreased livestock numbers since passage of the Taylor Grazing Act, (2) implementation of rangeland improvements, (3) better livestock management practices, and (4) cooperative management efforts between BLM, livestock operators, and other rangeland users and interests.

The Public Rangelands Improvement Act of 1978 established a grazing fee formula for a 7-year trial period and required the Secretaries of Agriculture and Interior to submit to Congress by December 31, 1985, an evaluation of grazing fee options and a recommendation on a formula for the 1986 and subsequent grazing fee years.

In compliance with the law, BLM and the Forest Service undertook several studies of grazing fees. A major effort was an appraisal of the market rental value of grazing. Data from the appraisal were used in the

1985 Grazing Fee Review and Evaluation Draft Report.

The draft report was distributed for public comment in April, and more than 7,100 responses were received. BLM and the Forest Service have analyzed these comments and are compiling a final report due to Congress by the end of the calendar year.



An acid rain monitoring station located near the Red Rock Canyon Recreation Area in Nevada

Soil, Water, and Air Management

Protection and management of the soil, water, and air resources of the public lands are basic BLM responsibilities and are central to both the short- and long-term objectives of BLM programs. Identification or inventory of existing soil, water, and air resources provides the information needed for multiple-use planning and program management.

A total of 6.1 million acres of soils were inventoried during the year, bringing the total number of acres inventoried to 133.4 million. The goal is to complete a soil survey of all public lands by 1990.

BLM continues to approach the Fiscal Year 1988 goal for inventorying existing water sources and quantities. During Fiscal Year 1985, 5,188 sources were added to databases used for recording water right filings with the States. Filings were made by BLM to the States for those water sources needed to provide for management of the public lands.

BLM's air resource program continues to play a key monitoring role in the National Acid Precipitation Assessment by operating 15 acid rain monitoring stations at remote locations in nine Western States. These stations provide data essential for the development of acid precipitation maps used to determine trends and possible impacts of acidic deposition in the western United States.

The air resource program also is using more than 50 Remote Area Weather Stations to provide climate and weather information for use in a wide range of field activities.



Yarding a log in western Oregon

Photo by Joe Ross, BLM Las Vegas District Office

Forest Management

Did you know . . . every environment that man comes in contact with contains some form of wood products. Literally thousands—maybe tens of thousands—of products and values are obtained from trees.

Approximately 90 million acres of BLM-administered lands are forested. Most of this is in Alaska, with 26 million acres located within the Lower 48 States. While 21 million acres of this are woodlands, the remaining 5 million acres are capable of producing high quality commercial timber. Included within these commercial forest lands are 2.4 million acres in western Oregon that comprise the most productive Douglas fir forest in the world.

In western Oregon, 1.154 billion board feet of timber were offered during Fiscal Year 1985, and 1.008 billion board feet were harvested. It would take loaded logging

trucks parked end to end from Washington, DC, to Portland, Oregon, to hold the volume of timber harvested. On public lands outside of western Oregon, BLM sold 92 million board feet of timber, and offered and sold enough firewood to heat 33,000 homes. In addition, 88,000 families had BLM Christmas trees in their homes.

The passage of the Federal Timber Contract Payment Modification Act gave Federal timber purchasers the option of selling back to the Federal Government high-priced timber contracts at a reduced rate. Contractors are returning approximately 1.3 billion board feet to BLM, which will reoffer the timber as soon as possible.

Trees were planted on about 19,500 acres in western Oregon and reforestation was completed on 1,500 acres in other areas. In addition, 40,000 acres in western Oregon and 2,200 acres elsewhere were managed using intensive forest management practices.

Wildlife Habitat Management

Did you know . . . about 85 percent of all desert bighorn sheep in the United States are found on land administered by BLM.

The Federal Land Management and Policy Act identified fish and wildlife habitat development and utilization as one of the six principal or major uses of the public lands.

BLM manages extensive and diverse habitat for hundreds of wildlife species, including nearly 100 Federally listed threatened and endangered plant and animal species. BLM ensures that wildlife needs are considered in all land-use planning and decisionmaking and works with State wildlife agencies to ensure conservation and rehabilitation of wildlife habitat under the Sikes Act and FWSA authority.

During Fiscal Year 1985, BLM inventoried more than 10 million acres of wildlife and fish habitat, focusing on those public lands where critical issues or potential conflicts are the greatest. In addition, nearly 5 million acres of potential habitat for threatened and endangered species were inventoried. A total of 124 new habitat management plans or related activity plans were prepared or revised, and BLM participated in the development of 15 recovery plans for threatened and endangered species. Nearly 1,300 habitat development projects were completed and 1,900 habitat projects were maintained.



Photo by Joe Ross, BLM Las Vegas District Office

Desert collared lizards are plentiful on BLM lands in the southwest. These carnivorous lizards run on their hind legs like miniature dinosaurs

Wild Horse and Burro Management

Did you know . . . even though the ancestor of the modern horse evolved on the North American continent, the species disappeared from this area during the Ice Age and was only reintroduced by the explorers of the 15th and 16th centuries.

The public lands in 10 Western States provide habitat for 50,400 wild free-roaming horses and burros (see Table C). BLM's wild horse and burro program oversees the protection, management, and control of these animals, as provided for in the Wild Free-Roaming Horse and Burro Act (Public Law 92-195, as amended).

Under Federal protection, the number of wild horses and burros increased significantly, and the removal and disposition of excess animals became a major program concern. However, the basic objectives of the program remain essentially the same:

- To preserve healthy herds of wild free-roaming horses and burros on public lands as symbols of America's historic and pioneer heritage;

- To protect wild free-roaming horses and burros from illegal capture, branding, harassment, or death;

- To manage wild free-roaming horses and burros as components of the public lands in a manner that maintains or improves the rangeland ecosystem;

- To provide humane care and treatment for wild horses and burros removed from the public lands.

Fiscal Year 1985 was a year of intensified activity in the wild horse and burro program. Recognizing the problem of increasing numbers of wild horses in several Western States and the potential for damage to public land resources, Congress appropriated \$16.7 million dollars for the program in Fiscal Year 1985 and directed BLM to remove 17,142 excess wild horses and burros. The addition of \$11 million to the Administration's budget request was made to "increase the FY 1985 removal rate to 11,000 excess animals and to remove the approximately 6,142 excess animals budgeted for but not removed in fiscal years 1983 and 1984." (Fiscal Year 1985 Appropriations Act for the Department of the Interior and Related Agencies)

In response to this congressional direction and in accordance with decisions reached in completed resource management plans, BLM embarked on an ambitious program of removals, adoptions, and animal maintenance during the year.

Many challenges accompanied this significant increase in funding. One of the first to be addressed was the need to obtain additional corral space to maintain the large number of animals that would be removed. Space was needed for as many as 10,000 excess animals, far

more than the capacity of BLM's corrals. Therefore, a competitive bidding process was initiated in December 1984, culminating in April 1985 with the award of four contracts for facilities in Nebraska, Nevada, and Texas. The termination of one contract for default reduced the number of facilities to three, but the lost space was replaced by expansion of two facilities, as provided for in the contracts.

By early June 1985, all three contract maintenance facilities were in operation. At the end of Fiscal Year 1985, slightly more than 7,600 animals were being maintained in these facilities, with an additional 2,300 wild horses and burros being cared for in BLM's own corrals. The cost of the three contract facilities for a period of approximately 4 months was nearly \$2.8 million. Toward the end of Fiscal Year 1985, BLM notified the contractors of its intent to exercise the option to extend the contracts through Fiscal Year 1986, depending on the availability of funding.



Freshly gathered wild horses will be transported to BLM corrals for medical treatment and preparation for adoption by qualified individuals

A total of 18,959 excess wild horses and burros were removed from public and private rangelands in Fiscal Year 1985. This number exceeded by about 1,100 BLM's own target of 17,825 animals, an aggregate number derived from removal needs in the 10 Western States. Approximately 90 percent of the removals were undertaken to implement locally developed resource management plans, to comply with court orders, or to respond to requests from landowners to remove animals from private land, as the law requires.

Following their removal from the public lands, old, sick, or lame animals were humanely destroyed in accordance with the law as an act of mercy, and healthy

animals were prepared for adoption. In an effort to find homes for more than 9,000 excess animals, the BLM Adopt-A-Horse (or Burro) Program made animals available at five permanent adoption centers, three contract adoption centers, and 60 satellite (temporary) centers.

The number of satellite centers, which bring animals to areas somewhat distant from permanent centers, has more than doubled in a period of 2 years. These 3- to 4-day centers have become an essential tool for placing



Although wild horses are generally gathered by helicopter herding, traditional roping methods are more successful for wild burros

wild horses and burros in private care. During Fiscal Year 1985, animals were offered for adoption at satellites in 25 States. In all, the BLM adoption program placed 8,091 excess wild horses and 1,463 wild burros in private care in Fiscal Year 1985. Unadopted healthy excess animals are being maintained in BLM corrals and contract facilities.

Congress also provided \$1 million for wild horse and burro research in Fiscal Year 1985. Working through the National Academy of Sciences, BLM contracted for two research studies: (1) wild horse parentage and population genetics and (2) fertility control in wild horses. A third study, arranged through an interagency agreement

with the Veterans Administration, involves analyses of previously collected blood samples to evaluate the condition of wild horses. When completed, these studies would provide data that will be useful in considering alternative strategies for management and control of wild horses on public lands. Research results will be available by 1988.

In December 1984, BLM published a proposed revision of the wild horse and burro program regulations. The revision of existing regulations will reduce the regulatory burden on the public, clarify BLM's management procedures, remove unnecessary self-regulating provisions, and arrange the regulations by subject. Following analysis of public comments on the proposed regulations, draft final rules were prepared. The final regulations are expected to be published in Fiscal Year 1986.

Seven lawsuits concerned with the wild horse and burro program were outstanding at the start of Fiscal Year 1985, all of which called for the removal of wild horses from public or private lands. Two of these suits came to trial during the year; one was resolved in the Government's favor and one was decided for the plaintiff.

However, the Government appealed the latter case, and the Ninth Circuit Court of Appeals is expected to reach decision early in 1986. A third suit was resolved in September 1985 when the parties agreed to a voluntary dismissal following removal of wild horses from the plaintiff's property.

The only new litigation in Fiscal Year 1985 was a suit brought by humane organizations against the Secretary of the Interior and various BLM officials, charging inhumane conditions and treatment of animals in BLM trials. As the fiscal year ended, that case had not gone to trial.

Table C. Estimated Populations of Wild Free-Roaming Horses and Burros on BLM-Administered Lands as of September 30, 1985

State	Horses	Burros	Total
Arizona	115	3,625	3,740
California	2,354	2,765	5,119
Colorado	414	0	414
Dahoe	706	0	706
Montana	157	0	157
Nevada	29,853	1,202	31,055
New Mexico	70	14	84
Oregon	3,149	25	3,174
Utah	1,254	34	1,288
Wyoming	4,684	0	4,684
Totals	42,756	7,665	50,421



A California Desert District Ranger and Special Agent confiscate marijuana plants grown on public lands

E. Support Services

Law Enforcement

Did you know . . . 18,444 marijuana plants growing on BLM-administered lands were destroyed during Fiscal Year 1985.

During Fiscal Year 1985, BLM Special Agents and Law Enforcement Rangers were full participants in the largest marijuana raids in the history of law enforcement with more than 2,200 Federal, State, and local law enforcement officers participating in domestic cannabis eradication efforts in all 50 States. The massive series of raids, code named "Operation Delta-9," began August 5, 1985, and lasted 3 days. BLM committed additional resources to supplement our existing eradication program and extended our "Operation Delta-9" participation through August 16, eradicating more than 8,282 plants with an estimated value of \$16.564 million in California, Oregon, Utah, New Mexico, Arizona, and Colorado.

The discovery by a local law enforcement official of a 6-acre "pot plantation" on an isolated BLM grazing allotment in New Mexico focused attention on the growing temptation among some individuals to replace conventional pursuits with something more profitable but highly illegal: marijuana. The subsequent raid—one of the largest in State history—resulted in 7 arrests and the eradication of approximately 35,000 plants with an estimated street value of \$60 million. Each of the plants was growing in its own container, with water and fertilizer being supplied through plastic tubing from a 5,000-gallon storage tank. BLM Special Agents and Law Enforcement Rangers assisted in the protection of the seized marijuana and its eventual disposal by spraying and burning.

BLM also continued its effort with other Federal, State, and local agencies to eradicate marijuana on public lands in California, Oregon, and other Western States. Such a cooperative effort is California's Campaign Against Marijuana Planting (CAMP). BLM played a leadership role in supporting and helping to organize CAMP in 1984. In 1985 CAMP destroyed more than 159,000 plants, representing an estimated \$1.635 billion worth of marijuana.

BLM's Rangers and Special Agents are all well-trained in law enforcement. In addition to its own law enforcement personnel, BLM relies on law enforcement agreements with State and local agencies that provide requested services. In 1985, BLM had 50 of these agreements in seven western States.

In addition to criminal violations, there are numerous cases of unauthorized use that are administrative or civil in nature and require law enforcement actions. Unauthorized use accounts for a major portion of all violations of regulations or laws that are used to administer the public lands.

Cadastral Survey

Did you know . . . the 200th anniversary of the Public Land Survey System was celebrated during 1985.

As the official administrator, BLM maintains all official Public Land Survey System land records and status on a geographically referenced base. Accomplishments during Fiscal Year 1985 in the Lower 48 States include completion of 416 plats, 49,844 acres of original survey, and 1.051 million acres of resurvey.

Original survey work remains a major program effort in Alaska. BLM has surveyed the exterior township boundaries of approximately 83.8 million acres (3.5 million acres during Fiscal Year 1985), or about 56 percent of the 149 million acres required under the Alaska Statehood Act and the Alaska Native Claims Settlement Act. However, the majority of these townships need further

surveys in the interior to identify valid private rights of third interests.

About 236 million acres remain unsurveyed in Alaska, including the millions of acres needed to identify boundaries of national parks, national forests, wildlife refuges, and wild and scenic rivers created by the Alaska National Interest Lands Conservation Act. BLM has surveyed 18.6 million acres of land that is presently under BLM jurisdiction.



A cadastral surveyor sets up a monument in California

To better organize the actual survey needs for any given project, BLM's Alaska State Office has adopted a new management system, referred to as the Patent Plan Process, to determine priorities of all land conveyances. Using this process will allow for patenting of all lands within a township. In general, it assures that the many realty actions, including field examinations, field reports, and adjudication are complete for all inholding within a given area before it will be surveyed. When a survey is complete for a township, a final survey plat can be prepared and patents can then be issued on any or all lands within the township.

Fire and Aviation Management

Did you know . . . in the last 10 years, the average number of wildfires occurring each year on public lands is 2,400, burning an average of 1 million acres.

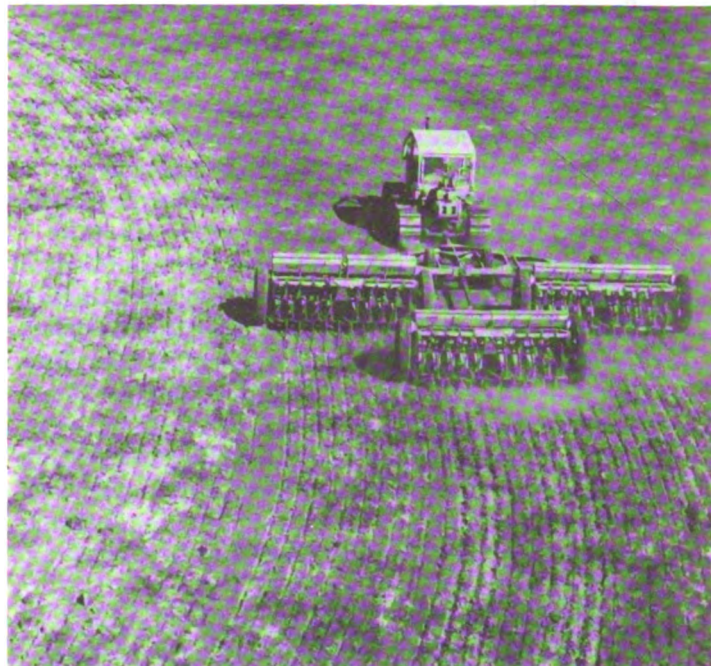
Under its Fire Management Program, BLM is responsible for protecting property and natural resource values on public lands from wildfire, rehabilitating areas

managed by wildfire, and ensuring that "prescribed burning" designed to accomplish a variety of management objectives is safely conducted and controlled. The 1985 fire season was one of the worst seasons on record. More than 3,100 fires burned and blackened 1.9 million acres. Most of this occurred in Nevada, Idaho, and Eastern Oregon. The season started as normal, then quickly changed. Dry lightning generated by storms from the Pacific Ocean entered the Western edge of the Great Basin several weeks earlier than usual. Multiple lightning strikes caused fires that were fanned by high winds over large areas.



More than 1.9 million acres of BLM land were burned by wildfires during the 1985 fire season

The most damaging fires occurred in Nevada. Fires threatened several communities and residents in the northern parts of the State, and several homes were lost. Prescribed burning in rural areas are becoming an increasing concern all over the Western United States. The cost of suppression was nearly \$75 million for 1985. With a high level of activity, BLM was fortunate only a few injuries were reported. Several firefighters were hospitalized, but were released shortly thereafter. Rehabilitation of many damaged soil/watershed areas occurred. Fire rehabilitation may consist of reseeding of grasses and shrubs, and construction of protection fences and check dams. Fire rehabilitation costs for the projects undertaken were \$4 million.



Triple drills facilitate reseeding of a burned area in Eastern Oregon

Resource management plans are beginning to provide fire-related information that can be used to design suppression actions matching cost with values at risk. In Fiscal Year 1985, 32 fire implementation plans were approved for use.

As techniques for controlling fire have improved, all Federal wildfire suppression agencies have adopted new procedures to use fire as a tool to meet identified resource management objectives, such as to enhance wildlife habitat; improve range forage, watersheds, and visual backdrop; and remove forest harvest residues. During Fiscal Year 1985, 699 prescribed burns covering 83,113 acres were held on public lands.

The Boise Interagency Fire Center (BIFC) in Idaho serves firefighting agencies of the Departments of the Interior and Agriculture and the States on a national basis. For BLM, it is the central location for fire training and communications development, fire equipment overhaul, and fire supply cache. BIFC coordinates efforts to suppress project fires (large, complex fires) on BLM lands in the 12 Western States, including Alaska.

In an average year, BIFC supports nearly 400 fires and processes nearly 2,200 fire orders. In 1985, one of their busiest years, they supported 960 fires and processed 6,500 fire orders. BIFC transported 45,450 fire personnel, and supporting actions required 1,146 flights for 1,736 hours on four contracted interagency large air transports and 155 flights on large charter aircraft.

The Alaska Fire Service, which is managed by BLM for all Interior agencies in Alaska, was heavily involved with assistance to the Lower 48 States during the 1985 fire season. Within Alaska, the season was not particularly severe. A total of 261 fires burned over 372,320 acres in the State. Emergency firefighter personnel, which are hired primarily from Alaska Native villages, were paid \$2.25 million during the year.

During Fiscal Year 1985, the Departments of Agriculture and the Interior combined their 21 Class I teams into 17 Interdepartmental Fire Overhead teams. The teams had 29 assignments that took them all over the country—from California, to Florida, to Alaska. Most teams had two assignments.

The experiences and operational successes of the first year of interdepartmental teams were encouraging. All teams were cross-trained and could utilize the Incident Command System (ICS) and Large Fire Organization. Most fires were managed under the ICS.

In another joint agency project, BLM and USDA Forest Service (FS) combined smokejumper programs during the 1985 fire season. The purpose was to assure efficient and effective use of these resources for the agencies. On BLM fires, 90 jumps were made in Nevada and 29 in Colorado.

BIFC also responded to a more unique situation during the year. On September 21, the Agency for International Development requested the State Department's help with relief for the Mexico earthquake disaster. Orders were processed for three light helicopters with water buckets, seven-person crews for each helicopter, and extra buckets for helicopters already in Mexico to be sent from BIFC. In addition, 4,000 pounds of equipment and support vehicles were sent. Arrangements were made by BIFC through the 6th Army to transport resources.

BLM's aviation program was reorganized in the Washington Office during 1985. Currently a Program Leader and Staff Specialist provide policy, budget, and guidance to the field on the full spectrum of aviation management. The reorganization includes funding for State Office positions whose primary duty is statewide aviation management. These positions are expected to be fully operational during Fiscal Year 1986.

Engineering Services

During Fiscal Year 1985, BLM substantially completed construction of a new District Office complex in Elko, Nevada. The complex included a 16,000 sq. ft. office area and a 10,800 sq. ft. warehouse with adjacent parking and storage areas. Construction was started on a new 14,400 sq. ft. fire warehouse in Fairbanks, Alaska, to be completed in 1986. Smaller construction projects such as telecommunications buildings, shop areas, recre-

ation facilities, fire stations, and sewage systems also were completed.

BLM provided maintenance to approximately 140 office buildings, more than 800 other BLM-owned buildings and associated water and sewer systems, about 800 developed family unit recreation sites, an additional 5,000 undeveloped (without water) sites, approximately 10,000 miles of roads (roughly equal to the road distance of two round trips between San Francisco, California, and Pittsburgh, Pennsylvania), more than 1,000 miles of trails, and 30 bridges.

With Fiscal Year 1985 completions, the Bureau has available 1:100,000 scale surface and subsurface maps providing coverage for approximately 90 percent of the lands administered by BLM. In addition, revision work was completed on the 1:500,000 scale State base maps and the 1:1,000,000 scale wilderness series. Support for resource management also was provided by photogrammetry and aerial photography acquisition and reproduction.

Additional Engineering Services support was provided through survey and design of various range improvement and watershed construction projects. BLM is continuing its dam inventory and hazard assessment programs.

Information Resources Management

Did you know . . . since BLM assumed custody in 1946, the public land records have grown to include some 7.5 million original ownership titles covering some 7.5 billion acres of present or former public domain lands, excluding the 13 original colonies.

BLM's organization emphasizes that automated data processing, records, and telecommunications management are not separate entities but are integral parts of the broad nature of information resources management (IRM). Activities during Fiscal Year 1985 focused on

- issuing a contract and starting a major multiyear study for the ADP/Telecommunications Equipment Modernization Project. This project will establish BLM needs and approaches to equipment modernization to meet future requirements. Implementation of results of the study are planned during Fiscal Year 1988;
- continuing the automation of lands and minerals records (see section II A.);
- publishing the *1984 Public Land Statistics*;
- incorporating the Freedom of Information Act (FOIA) program into the Records Management Branch of the Headquarters IRM Division;
- implementing a shared BLM/Forest Services Western alert library service to assist both agencies in resource management work;

issuing a new retention and disposal schedule for machine readable records;
 developing an automated BLM master name file for all public users involved in BLM-administered programs;
 completing microfilming and indexing of Cadastral Survey records for the State of Oklahoma for duplication and purchase by the public;
 performing Information Systems Reviews for 3 State Offices to assist them in evaluating their information systems, telecommunications, and records management needs and capabilities;
 performing Internal Control Reviews at each of 12 State Office computer centers, as required by the General Accounting Office; and
 initiating an effort to review all telephone systems to assure they meet BLM's minimum needs in a cost effective manner. This will continue into Fiscal Year 1986.

Evaluations/Audits

BLM's Division of Program Evaluation in the Headquarters Office conducts internal evaluations of BLM programs, general management, and special issues. They provide coordination and support to the evaluations conducted by each of the State Offices and to a variety of studies done by Headquarters program offices. In addition, they provide coordination and a central liaison point for all of the audits conducted on BLM topics by the U.S. General Accounting Office and Interior's Office of the Inspector General.

During Fiscal Year 1985, the Division of Program Evaluation completed the following evaluations:

- Eastern States General Management Evaluation, October 1984
- Bureauwide Planning Program, November 1984
- Bureauwide Range Program, May 1985
- Boise Interagency Fire Center, August 1985

Several studies were undertaken and then postponed or discontinued based on the findings during the scoping process, including general management evaluations in California and Nevada, and special evaluations into Inspection and Enforcement and Known Geologic Structures.

Also during Fiscal Year 1985, Administrative Processes Reviews were conducted in Utah, the Boise Interagency Fire Center, and Montana; Information Systems Reviews were conducted in California, Colorado, and Eastern States Office; and 13 Internal Control Reviews were conducted by various programs. A BLM manual and handbook regarding Internal Control Reviews were prepared.

Numerous evaluations were completed by the States, including general management evaluations in Fairbanks, Alaska; Phoenix, Arizona; and the Arizona Strip. Special evaluations were conducted in the Alaska Lands Program, Colorado mineral records, and forestry in Coeur d'Alene, Idaho. A program evaluation of surface protection in Arizona also was completed.

BLM has provided information and assistance to the General Accounting Office (GAO) and to Interior's Office of the Inspector General (OIG) auditors reviewing Bureau programs and activities. GAO has completed eight final reports and four draft reports directly affecting BLM. OIG completed seven final reports and six draft reports for review and submission of comments by BLM. A total of 38 financial audit reports also have been provided to BLM by OIG auditors.

Volunteers and Other Contributed Services

Did you know . . . since BLM initiated its volunteers program in 1982, more than 13,000 volunteers for the public lands have donated approximately 580 work-years of unpaid service valued by BLM field managers at more than \$7.5 million.

Citizens are donating their skills, time, and energy to assist BLM in managing the public lands in steadily increasing numbers. During the year, more than 4,800 persons gave the Bureau a hand as unpaid volunteers—an increase of 34 percent over the previous year.

The hours of service contributed by these volunteers during Fiscal Year 1985 totaled 208 work-years, the equivalent of extending the agency's employee workforce by 2 percent. The work they donated was valued at \$3.2 million.

These volunteers assist in many different ways. The kinds of projects that attracted the most support are concerned with management of renewable natural resources, including wildlife (16 percent of all volunteers), forestry (14 percent), rangeland (3 percent), wilderness (3 percent), and watershed and hydrology improvement (2 percent). Recreation projects attracted 18 percent; historic and cultural resources, 9 percent; and energy and mineral resources, 5 percent. Some 6 percent assisted with engineering, surveying, fire protection, resource protection, and other operations work; 10 percent with administrative support; and 1 percent in public affairs and planning.

About one-third of BLM's volunteers are under 18 years of age; 9 percent are 55 or older. About one out of four are female.

The following sampler of projects on which volunteers worked during the year suggests their diversity:

In Colorado, members of two Girl Scout troops joined a BLM biologist and his family in preparing 3,700

packets of seeds for hunters to plant while on nearby public lands. The seeds were a mixture of species that provide wildlife habitat and forage. The packets included planting instructions, species descriptions, explanation of the importance of winter range, and suggestions for leaving a clean camp. Hunter response was reported good, and many campsites were left cleaner than in prior years.



More than 40 volunteers cleaned up public land in the Red Hills area of Tuolumne County, California, that was littered with loose trash, car bodies, and other assorted items

In New Mexico, members of the Carlsbad Sportsman's Club helped install nine water-catching "guzzlers" to improve habitat for many wildlife species. They agreed to continue to assist with a 5-year program of habitat renovation that includes installing and maintaining a network of 36 guzzlers.

Volunteers concerned about the survival of desert bighorn sheep worked on three transplant and habitat improvement projects during the year. In Nevada, members of the Fraternity of the Desert Bighorns worked with BLM to release 25 bighorns in the South Pahroc Range. In addition, 44 volunteers helped BLM assemble and install five bighorn guzzlers in one day in the eastern part of the State. In Arizona, Desert Bighorn Sheep Society volunteers assisted BLM and Arizona Game and Fish Department biologists in restoring several dozen sheep to their historic range in the Paria Canyon and Kanab Creek wilderness areas near the Arizona-Utah border.

In the Lewistown District of Montana, a volunteer completed grazing allotment maps for almost every allotment in the Havre Resource Area. The project involved visiting the areas to check the vegetative condition of the rangeland and to count livestock.

In Oregon, under the guidance of a BLM retiree, Audubon Society members and Boy Scouts built a new trail that will tie in with the Pacific Crest National Trail

along the backbone of the Cascades. And in Alaska, two Boy Scouts organized a crew of Scouts and their parents to clear brush for a dogsled and ski trail.

Near the Montana and Idaho border, Scouts, members of the Lemhi Nordic Ski Club, and other volunteers built a lean-to shelter near the Continental Divide Trail in the Beaverhead Mountains.

Fourteen volunteers in river rafts cleaned up a 27-mile stretch of the San Juan River in Utah. The volunteers collected trash too big for BLM's regular river patrol, including 30 tires and a truckload of garbage.

In the California Desert, a BLM employee organized a cleanup weekend at the Johnson Valley off-road recreation site. More than 200 American Motorcycle Association members and their families hauled out 4 tons of glass and other trash. BLM provided dump trucks to haul it away, the American Honda Corporation provided trash bags, and the Thompson Distributing Company of Barstow donated beverages for the workers.

BLM's cadre of volunteer campground hosts included two retired couples who maintained the 115-unit Virgin River Campground near St. George, Utah, and the 40-unit Burro Creek campground near Kingman, Arizona. Hand-drawn maps of nearby wildlife and geologic areas and a slideshow on desert wildflowers were provided by the Burro Creek hosts.

In the King Range National Conservation Area along California's north coast, 50 volunteers excavated and salvaged artifacts from four prehistoric sites threatened by vandalism and erosion. The volunteer students from a nearby university donated 4,500 hours of work.

Near Billings, Montana, 437 Boy Scouts built erosion control dikes and silt traps and planted several hundred trees under the guidance of BLM staffers, who also explained construction and planting methods and benefits that will come from the work. The theme for the weekend event was "This Is Your Land."



A new trail at Squaw Leap in BLM's Bakersfield, California, District was cleared by volunteers

Forty volunteers from both ORV and environmental groups built two vehicle closures on roads leading to Hidden Valley, an area in Nevada rich in scenic and prehistoric cultural sites. In addition to more than 400 hours of work, the volunteers donated \$1,000 for metal signs and posts as well as heavy equipment to scarify the closed roads to hasten their return to a natural appearance.

To advance restoration of Garnet Ghost Town, once a bustling gold mining community, BLM and the Garnet Preservation Association sponsored a benefit boxing match. The volunteer protagonists were a leader of the Montana Environmental Information Center and an executive of the Montana Mining Association. An enthusiastic crowd paid \$2,500 to cheer, boo, and see a few punches thrown during three unorthodox rounds. Because the Montana State Legislature previously had agreed to match two to one the privately raised funds for the restoration project, the event had the effect of raising \$7,500 for the cause. The bout itself was called off by the politic referee, Representative Pat Williams of Montana.

General Administration

Did you know . . . efforts to streamline and improve BLM's efficiency resulted in a savings to taxpayers of \$5.5 million during Fiscal Year 1985.

Administrative Services

During Fiscal Year 1985, BLM spent \$69.7 million for goods and services. Formal contracts awarded by the Washington Office, Denver Service Center, and State Offices to support field office programs totaled \$44.0 million. Field offices expended an additional \$25.6 million, mostly for small purchases.

BLM continues to exceed its goals in various socioeconomic procurement programs:

	FY 1985 Goal (\$000)	Actual Contract Award (\$000)
Labor Surplus Area Set-asides	\$ 7.6	\$13.5
Small Businesses	21.0	30.5
Women Business Enterprises	1.1	1.2

BLM is continuing to develop an automated procurement system to plan, monitor, and report on contract awards and to prepare contract documents.

BLM will produce several procurement manuals and handbooks during Fiscal Year 1986 to assist program and procurement personnel in performing their responsibilities in the procurement, grant, or cooperative agreement process. An orientation brochure and media presentation also are being developed to introduce new employees into the procurement function.

The procurement training program will be reviewed to assure that delivery methods and training materials are flexible enough to satisfy the needs of each audience at the lowest cost. Procurement training material will be integrated as closely as possible with the manuals and handbooks.

In Fiscal Year 1985, an Automated Personal Property System was completed to account for personal property assets. This new system increases accountability, streamlines inventory procedures, produces automated reports, and provides increased management utility for controlling more than \$125 million worth of personal property assets.

Two administrative consolidation projects were implemented in Fiscal Year 1985 in connection with the Department's Reform 88 management initiatives effort. In January, all Departmental forms previously stocked and distributed by the Office of the Secretary in Washington, D.C., were transferred to BLM's Printed Materials Distribution Section in Denver for stocking, reprinting, and distribution. Substantial cost savings are anticipated due to lower space costs, better management through our existing automated billing and inventory system, and reduced shipping costs because most customers are located in the West.

The Bureau also participated in a project to consolidate mailrooms in Interior's Washington, D.C., area. As a result, BLM's mail unit was closed and seven employees transferred to the Office of the Secretary on October 1, 1985. BLM will be billed by the Department for mail services.

Financial Management

BLM's Division of Finance in the Washington Office directs the operation of and improvements to the Bureau's accounting system; provides guidance on financial management policy and procedures; provides Bureauwide coordination of and guidance for implementation of the Debt Collection Act of 1982 and OMB Circular A-123, Internal Control Systems; and manages the Payments in Lieu of Taxes (PILT) program, BLM public land revenue sharing payments to State and local governments, and monetary credits issued by BLM to the private sector.

During Fiscal Year 1985, BLM initiated a Bureauwide program to improve cash management. The Division

coordinated with the Office of the Secretary and the Department of the Treasury to implement the use of private banking "lockbox" facilities in July 1985 to permit the use of electronic funds transfer systems to expedite the collection and deposit of Oregon and California Grant Lands (O&C) timber revenues. Approximately \$18.2 million was collected in the last quarter of the fiscal year by the use of the lockbox. This resulted in an estimated interest savings to the Federal Government of \$15,300 for this 3-month period. Similar collection and deposit procedures are scheduled to be implemented for other BLM revenue producing programs during FY 1986. Projections for Fiscal Year 1986 O&C timber collections indicate that the interest savings could exceed \$100,000 during the year.

The Division supported program areas with unique financial management needs such as rights-of-way cost reimbursement procedures, mineral leasing, grazing billings and collections, and timber buy-out contracts.

As part of a governmentwide effort to reduce administrative costs, BLM coordinated with the Office of the Secretary's Departmentwide review of bureau and office payroll processing and administrative payment functions. The Department plans to consolidate bureau and office payroll operations and standardize administrative payment systems. Implementation of these initiatives are scheduled to begin in Fiscal Year 1986.

The Division also was responsible for coordinating and overseeing the Bureau's implementation of internal control systems to ensure that all programs and functions performed by BLM are reviewed periodically to minimize the possibility of waste, fraud, and abuse in accordance with the Federal Managers' Financial Integrity Act.

BLM managed the Departmentwide debt collection contract, referring 400 claims totaling \$500,000 to the contractor. Sixty-five claims totaling \$106,000 were either settled or written off during the year.

Implementation of the Diners Club charge card contract brought about a significant reduction in outstanding travel advances. At the close of Fiscal Year 1984, BLM's outstanding travel advances totaled \$1,385,709. By the end of Fiscal Year 1985, the balance had been reduced to \$807,164.

Procedures were developed for issuing, processing, and maintaining accountability for monetary credits totaling \$17.5 million, plus accrued interest. The monetary credits were received by BLM in exchange for revoked mineral leases and certain land acquisitions authorized by law. The monetary credits are transferable and can only be used for payment of coal lease bonus bids, rentals, and royalties due to the United States Government. In Fiscal Year 1985, approximately \$1.5 million was applied to payment of coal leases.

The Division distributed \$287.3 million to States and local governments in Fiscal Year 1985. A total of \$134.3 million in public land revenue sharing payments was paid to States and local governments, and a total of \$101 million in PILT payments were distributed to more than 1,900 units of local government. A summary of payments made to State and local governments in Fiscal Year 1985 appears in Section III of this report.

Management Efficiencies

BLM is actively supporting the administration's effort to streamline and make government more efficient while at the same time maintaining its service to the public. During Fiscal Year 1985, BLM identified numerous internal initiatives to reduce its administrative and overhead costs, streamline, and consolidate systems. The efforts so far have resulted in administrative savings equivalent to 149 positions and \$5.5 million. BLM is reducing the number of people necessary to process personnel actions and administer purchasing and contracting activities, and is automating more systems.

In addition to these efforts, BLM is trimming its Washington Office staff, which will allow more dollars to flow to the field organization. Plans are to continue the trend of streamlining and consolidating in Fiscal Years 1986 and 1987.

Personnel Management

BLM's Division of Personnel and Training in the Headquarters Office concentrated much of its efforts on developing personnel plans and policies in connection with the Forest Service (FS)/BLM Interchange Proposal. "Reform 88" initiatives involved the consolidation and streamlining of personnel services as well as several major position classification issues during Fiscal Year 1985.

Joint BLM/FS personnel policies and practices were developed to assist in the placement of personnel who become surplus to the needs of each agency due to improvement in the efficiency of their operations. This includes the establishment of a joint vacancy announcement policy, automated vacancy listing system, an inter-agency agreement for placement of spouses of transferring employees, and a joint request for early-out retirement authority (which was subsequently approved by the Office of Personnel Management).

A centralized automated summer/seasonal application and rating system was implemented by the Denver Service Center, resulting in a significant savings in processing time.

A comprehensive position management program using the resources of local position management committees was implemented to ensure that effective and efficient

is made of valuable position and personnel resources. The program is monitored by the Bureau Level Position and Pay Management Steering Committee, which is responsible for a holistic approach to position management in view of administratively mandated objectives associated with Reform 88, Grade Bulge Reduction, and related efforts.



position classification guidelines for Realty Specialist Geology and Petroleum Engineer/Mining Engineer positions were developed in order to ensure that published classification standards are applied in a consistent fair manner to these specialized Bureau occupations. Additional work continues on development of a single agency qualification standard for Realty Specialists, as well as the ongoing process to finalize a classification standard and single agency qualification standard for Natural Resource Managers.

At the end of Fiscal Year 1985, BLM employed approximately 10,500 individuals, 8,700 of which had full-time permanent appointments. During the year, about 100 full-time equivalent workyears were utilized.

III. Financial Management

A. Appropriations and Expenditures

Bureau of Land Management programs are funded through six major operating appropriations, several minor permanent and trust appropriations, and reimbursements from other Federal agencies for work performed on their behalf. In addition, the BLM budget includes one annual appropriation and numerous permanent appropriations that provide funds to State and local governments in which Federal land resources are located, either as payments in lieu of taxes or as shared revenues from the sale, leasing, or disposition of resource commodities.

A history of the total funding available to BLM since Fiscal Year 1982 includes the following:

	FY 1982	FY 1983	FY 1984	FY 1985
	(in millions)			
BLM Operating Appropriations	\$ 502.0	\$ 427.9	\$ 482.7	\$ 437.0
Payments-in-Lieu of Taxes	95.5	96.3	105.0	106.0
Permanent Payments to States, etc.	637.7	579.8	58.1	60.0
Other miscellaneous	4.9	6.4	7.7	6.0
Totals	\$1,240.1	\$1,110.4	\$ 653.5	\$ 609.0

Funding and obligation data on a program-by-program basis for Fiscal Years 1984, 1985, and 1986 follow:

	FY 1984 Actual	FY 1985 Actual	FY 1986 Proposed
	(in thousands)		
Planning			
Appropriation	\$ 9,063	\$ 9,265	\$ 9,636
Obligations	9,062	9,264	9,636
Work Years	238	216	234
Energy and Minerals Programs			
Oil and Gas Management			
Appropriation	40,491	42,804	44,545
Obligations	40,466	42,804	44,545
Work Years	1,100	1,134	1,210
Geothermal Management			
Appropriation	2,957	3,227	2,758
Obligations	2,957	3,108	2,758
Work Years	72	72	60
Coal Management			
Appropriation	17,420	17,962	19,338
Obligations	17,417	17,370	19,338
Work Years	331	285	349

	FY 1984	FY 1985	FY 1986
	Actual	Actual	Proposed
	(in thousands)		
Oil Shale/Tar Sands Management			
Appropriation	\$ 2,148	\$ 2,172	\$ 2,098
Obligations	2,148	1,931	2,098
Work Years	47	37	44
Nonenergy Leasable (Minerals Leasing and Uranium Operations)			
Appropriation	4,456	4,658	4,829
Obligations	4,454	4,458	4,829
Work Years	91	91	106
Mining Law Administration and Mining Materials			
Appropriation	9,655	10,051	10,335
Obligations	9,654	9,883	10,335
Work Years	270	264	292
Lands Programs			
Energy and Nonenergy Realty			
Appropriation	38,075	17,888	16,799
Obligations	38,062	17,853	16,799
Work Years	676	474	482
Alaska Lands*			
Appropriation	0	13,022	13,398
Obligations	0	12,999	13,398
Work Years	306	302	318
Rights of Way*			
Appropriation	0	6,890	7,776
Obligations	0	6,885	7,776
Work Years	0	194	216
Acquisitions			
Appropriation	6,144	24,088**	9,546
Obligations	1,445	19,336	9,546
Work Years	6	18	6
Withdrawal Review			
Appropriation	3,529	4,034	3,744
Obligations	3,519	4,006	3,744
Work Years	90	100	92

* Funded as part of the Energy and Nonenergy Realty in Fiscal Year 1984.

** Cranberry Wilderness area special acquisition appropriated \$14,700,000.

	FY 1984	FY 1985	FY 1986
	Actual	Actual	Proposed
	(in thousands)		
Wilderness Review			
Appropriation	\$ 7,020	\$ 6,419	\$ 7,280
Obligations	7,019	6,344	7,280
Work Years	174	150	118
Recreation Management			
Appropriation	\$ 7,212	\$ 7,337	\$ 8,656
Obligations	7,211	7,273	8,656
Work Years	192	173	195
Natural History and Cultural Resource Management			
Appropriation	4,843	5,279	6,043
Obligations	4,843	5,230	6,043
Work Years	116	119	154
Renewable Resource Programs Rangeland Management (Includes Soil, Water, and Air)			
Appropriation	61,356	60,195	57,922
Obligations	59,539	57,337	57,922
Work Years	1,347	1,234	1,182
Forest Management (Includes Public Domain and O&C Lands)			
Appropriation	43,622	54,766	53,798
Obligations	43,527	54,209	53,798
Work Years	1,037	1,037	1,011
Wildlife Habitat Management			
Appropriation	13,604	16,877	17,244
Obligations	13,604	16,724	17,244
Work Years	341	346	316
Wild Horse and Burro Management			
Appropriation	5,766	17,039	16,964
Obligations	5,765	16,899	16,964
Work Years	98	148	150
Support Services Law Enforcement			
Appropriation	2,073	2,351	3,320
Obligations	2,073	2,335	3,320
Work Years	33	33	29

	FY 1984 Actual	FY 1985 Actual	FY 1986 Proposed
(in thousands)			
Cadastral Survey			
Appropriation	\$23,873	\$24,676	\$26,756
Obligations	23,824	24,591	26,756
Work Years	468	425	455
Enginnering			
Appropriation	982	1,138	1,160
Obligations	981	1,135	1,160
Work Years	23	26	26
Fire Management			
Appropriation	10,686	9,258	10,811
Obligations	10,739	9,182	10,811
Work Years	153	137	145
General Administration			
Appropriation	82,352	83,136	83,101
Obligations	82,269	83,119	83,101
Work Years	1,275	1,207	1,206
Data Management			
Appropriation	14,376	14,122	13,907
Obligations	14,375	14,047	13,907
Work Years	246	221	232

Revenues and Receipts

The BLM is a primary collector of Federal revenues. Receipts from the lease, use, and sale of public lands and resources totaled approximately \$227 million in Fiscal Year 1985 (see Table D). Of this amount, \$71 million will be returned to the States, \$15 million was transferred to the Reclamation fund, \$8.4 million transferred to other Federal agencies, and the remaining \$32.6 million went into the general fund of the United States Treasury. Monies appropriated from the Treasury for operating expenses totaled \$468 million in Fiscal Year 1985.

The development and use of BLM lands and resources generate receipts from a variety of sources. Timber receipts totaled \$137.6 million in Fiscal Year 1985. Since the Secretary's moratorium on the simultaneous oil and gas filing program was lifted, revenues have significantly increased in Fiscal Year 1985 to \$28.6 million. Receipts generated by other BLM programs, including sales of public lands, grazing, right-of-way leases, permits and rentals, and other miscellaneous receipts have remained constant with past years' activities.

Table D. Bureau of Land Management Receipts

	FY 1985 Actual	FY 1986 Estimated
Statement of Public Land Receipts		
Mineral Leases and Permits	\$ 15,661,230 ^a	\$ 1,500,000
Sales of Public Lands & Materials (Includes Burton-Santini Act sales in Nevada)	12,398,143	14,300,000
Simultaneous Oil & Gas Filing Fees	28,557,925	30,000,000
Fees and Commissions	2,049,287	2,300,000
Sales of Public Timber	9,774,521	14,100,000
O&C Lands (Timber Sales)	122,247,056	130,200,000
Coos Bay Wagon Road Lands (Timber Sales)	5,534,044	6,700,000
Grazing Fees	14,784,684	15,123,000
Rights-of-Way Rentals	2,988,331	3,000,000
Rent of Land	446,120	400,000
Miscellaneous Leases and Permits	601,179	600,000
Nonoperating Revenue ^b	11,368,851	12,415,000
Other ^c	759,187	1,000,000
Totals	\$227,170,558	\$231,638,000
 Allocation of Public Land Receipts		
States and Counties	\$ 71,465,653	\$ 51,457,000
Reclamation Fund	\$ 14,977,344	\$ 18,384,000
Transfer to other Federal Agencies	\$ 8,335,256	\$ 8,500,000
Indian Trust Fund	\$ 29,319	\$ —
General Fund	\$132,362,986	\$153,297,000
Totals	\$227,170,558	\$231,638,000

^a Only reflects receipts collected for the rental of oil and gas pipeline rights-of-way, Natural Petroleum Reserve revenues, and miscellaneous mineral revenues not collected by Minerals Management Service.

^b Incidental receipts from fines, taxes, etc., that are unrelated to routine public land administration.

^c Receipts from Special Recreation Use Fees.

State and Local Shares

BLM's most direct fiscal impact upon public land states and localities is through revenue sharing and direct payments. In the decade from 1975 through 1984, State and local governments received \$3.8 billion from the Department of the Interior as their share of revenues collected from the lease or sale of public land resources and as in-lieu payments for tax-exempt lands.

Revenue Sharing

Although the Minerals Management Service took over receipt and distribution function for onshore oil and gas pipeline rentals and National Petroleum Institute revenues.

Taylor Grazing Act revenues are distributed according to the type of land generating them. Of the fees collected from livestock grazing districts, 12.5 percent are allocated to the State for expenditure by the State legislature to benefit the counties generating these graz-

ing receipts. Grazing revenues generated on public lands outside of grazing districts are divided equally with the State; again the State legislature has the authority to expend the funds to benefit the counties where grazing monies are collected.

Land sale revenues generated in Nevada under the Burton-Santini Act are collected and distributed on an annual basis. This Act authorizes the allocation of 10 percent of gross revenues back to Clark County or the municipality in which these revenues are generated, in addition to a 5 percent allocation to the State of Nevada. The remaining revenues are deposited in the Land and Water Conservation Fund for the purchase of environmentally sensitive land in the Lake Tahoe Basin.

Table E outlines the distribution of receipts to States and indicates the sources of revenue sharing made by BLM during Fiscal Year 1985.

Table E. Payment of BLM Receipts to States as of September 30, 1985

States	Mineral Leases and Permits	Forage Receipts Outside Taylor Grazing Districts	Forage Receipts Inside Taylor Grazing Districts	Sale of Public Land and Timber	Other	Total
Alabama	\$ 0	\$ 0	\$ 0	\$ 338	\$ 0	\$ 338
Alaska	10,915,018	0	0	6,837	0	10,921,855
Arizona	29,035	162,588	87,257	29,904	0	308,784
Arkansas	0	0	0	73	0	73
California	5,156	89,651	19,456	121,212	0	235,475
Colorado	258,577	31,890	72,712	35,812	0	398,991
Florida	0	0	0	320	0	320
Hawaii	4,689	23,792	191,685	23,166	0	243,332
Illinois	0	0	0	1,016	0	1,016
Indiana	0	87	0	0	0	87
Minnesota	0	0	0	2,182	0	2,182
Mississippi	0	0	0	534	0	534
Montana	4,210	112,619	124,077	20,485	556,038	817,429
Nebraska	0	799	0	66	0	865
Nevada	0	26,929	323,135	860,716	0	1,210,780
New Mexico	329,998	154,609	211,886	23,081	12,548	732,122
North Dakota	133	6,500	0	569	0	7,202
Oklahoma	94	244	0	5,994	13,437	19,769
Oregon	7,799	32,991	154,100	117,943,486 ^a	0	118,138,376
South Dakota	15	50,947	0	1,494	0	52,456
Texas	23,088	0	171,879	18,189	506	213,662
Washington	99,014	19,379	0	15,934	0	134,327
Wyoming	300,383	311,319	193,326	55,333	0	860,361
Totals	\$11,977,209	\$1,024,344	\$1,549,513	\$119,166,741	\$582,529	\$134,300,336

^aIncludes \$116.9 million for O&C Grant Land (including a prepayment of Fiscal Year 1985 receipts totaling \$50.9 million) and \$0.5 million for Coos Bay Wagon Road timber receipts.

Payments in Lieu of Taxes

Local government units within Western States are the principal beneficiaries of the 1976 Payments in Lieu of Taxes Act. This law was enacted to provide Federal payments to those areas where large portions of land are in Federal ownership and, therefore, are exempt from local property taxes. Serving as a supplement to revenue sharing funds, payments in lieu of taxes (PILT) are made directly to local governments and may be used for any governmental purpose.

Lands eligible for PILT are federally owned lands in the National Forest and National Park Systems, lands administered by BLM, lands dedicated to the use of Federal water resource development, dredge disposal areas under the jurisdiction of the Army Corps of Engineers, and, effective as of Fiscal Year 1979, National Wildlife Reserve Areas, inactive and semiactive Army installations, and certain lands donated to the United States Government. The Act specifically prohibits payments for lands (but not certain donated lands) that were tax exempt before being acquired from State or local governments.

Since PILT payments started in 1977, more than \$910 million has been paid to local governments; about \$101 million of that amount was paid in Fiscal Year 1985 (see Table F).

Table F. Summary of Payments in Lieu of Taxes by State

State	FY 1985 Payment
Alabama	\$ 112,669
Alaska	4,351,834
Arizona	8,475,471
Arkansas	1,079,346
California	9,908,588
Colorado	7,000,420
Connecticut	19,871
Delaware	4,495
District of Columbia	6,010
Florida	1 244,111
Georgia	713,228
Hawaii	8,413
Idaho	7,320,888
Illinois	274,979
Indiana	143,540
Iowa	122,532
Kansas	344,711
Kentucky	683,587
Louisiana	211,914
Maine	50,959
Maryland	48,979
Massachusetts	76,511
Michigan	1,277,249
Minnesota	889,120
Mississippi	393,536
Missouri	1,100,405
Montana	8,356,506
Nebraska	315,993
Nevada	5,637,839
New Hampshire	313,380
New Jersey	45,070
New Mexico	10,332,972
New York	169,367
North Carolina	1,225,948
North Dakota	515,092
Ohio	227,176
Oklahoma	759,697
Oregon	2,617,177
Pennsylvania	204,239
Rhode Island	0
South Carolina	122,833
South Dakota	1,542,405
Tennessee	456,258
Texas	1,228,901
Utah	8,851,890
Vermont	216,090
Virginia	1,136,126
Washington	1,838,476
West Virginia	808,741
Wisconsin	554,541
Wyoming	7,608,396
Puerto Rico	9,183
Virgin Islands	84,389
Guam	1,267
Total	\$101,093,318

A Look Ahead

BLM faces a wide variety of issues every day—some are easily resolved and maintain their “issue” status for a few days; others that remain of critical importance for years. This section summarizes the current issues and initiatives being emphasized by BLM during Fiscal Year 1986. Many are holdovers from the previous year—or years—while others chart unknown territory for the Bureau.



Nature transforms granite rocks into large boulders, then into towers, caves, and piles at Smugglers Cave Wilderness Study Area near El Centro, California.

exchange. The proposal to transfer approximately 10 million acres of Federally managed lands and related responsibilities between BLM and the Department of Agriculture's Forest Service remains a major issue during Fiscal Year 1986. Work will continue on the proposed legislation and the legislative environmental impact statement. Both are expected to be forwarded to Congress for consideration in February 1986. Implementation will begin only after Congressional approval.

Riparian Area Management. The emphasis on riparian area management undertaken by BLM in Fiscal Year 1985 will continue during the coming year. Ongoing and proposed uses of the public lands will be managed to ensure appropriate protection of these unique areas. The policy statement issued during Fiscal Year 1985 will be revised and published as final, and a field office manual will develop guidance to be followed in classifying, inventorying, monitoring, managing, and restoring riparian areas.

Hazardous Materials Management. Program emphasis will continue to be on developing program capabilities to deal cost effectively with remedial actions on hazardous waste sites on public lands, inventory and risk assessments of such potential sites, compliance with the Resource Conservation and Recovery Act, liability control, and technical assistance to States.

Oil and Gas Management. BLM plans to complete its draft of revisions to oil and gas operating regulations (Title 43 CFR 3160), as related to the Federal Oil and Gas Royalty Management Act of 1982, early in 1986. A series of public hearings on the repropoed regulations will be scheduled. Final regulations are expected to be published during Fiscal Year 1987.

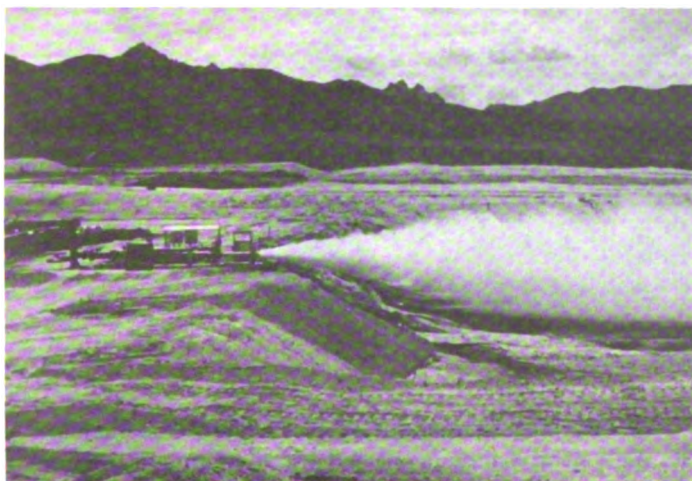
In addition, the agency intends to meet the ambitious schedule for the preparation and issuance of Onshore Oil and Gas Orders during Fiscal Year 1986 and beyond that will address distinct phases of operations on Federal and Indian oil and gas leases.

The sequence in which these Orders will be developed is governed by their relative importance to BLM's inspection and enforcement program. Issuance of Priority 1 Orders on site security, oil measurement, and drilling operations in final form is scheduled for July 1986. Priority 2 Orders on hydrogen sulfide operations, gas measurement, and disposal of produced water are scheduled to be issued as final Orders in October 1986. Four

other lower priority Orders have been identified. A recently established Orders Task Group will continue to oversee and coordinate the work of the various committees responsible for development and issuance of each Order.

Eliminating backlogs of applications for permit to drill, simultaneous oil and gas parcels to be offered for lease, identification of potential drainage situations, and plugged and abandoned well inspections will be a high priority.

Geothermal Management. Though not as pressing as the oil and gas regulatory and Orders efforts, a proposed revision of BLM's regulations governing operations on geothermal leases (Title 43 CFR 3260) is being developed and may be published for public comment during Fiscal Year 1986. Objectives include elimination of burdensome and unnecessary regulations, and simplifying application requirements and the approval processes.



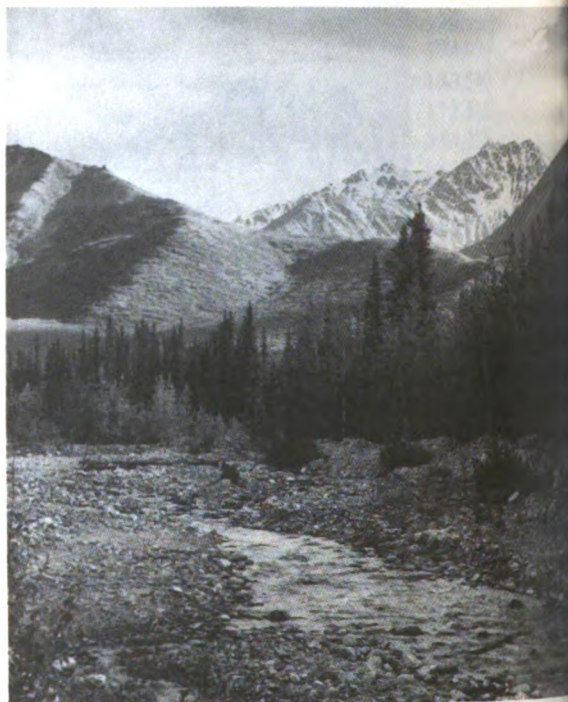
A geothermal unit near Cedar City, Utah

Postlease exploration and development will be a primary emphasis, followed by lease assignments involving drilling or production, servicing lessees, competitive sales, new lease applications, prelease exploration, and processing of other lease assignments.

Coal Management. After coal program revisions are completed, activity planning will resume in the Green River-Hams Fork, Powder River, Fort Union, and San Juan River regions. Completed plans in the Uinta-Southwestern Utah and Southern Appalachian regions will be reviewed to ensure consistency with the coal program revisions. Other activities, such as developing individual Regional Coal Team charters and long-range planning schedules, will be undertaken to prepare for the resumption of coal activity planning.

BLM plans to revise the coal operations regulations and develop final guidelines implementing Section 7 of the Mineral Leasing Act. Guidelines to ensure application of nationally uniform procedures for bonding, inspection and enforcement, production verification, and suspensions also will be drafted.

Nonenergy Minerals. New guidelines to ensure application of nationally uniform procedures for solid mineral lease readjustments, bonding, inspection and enforcement, production verification, and suspensions will be developed. In addition, BLM will revise the solid mineral operations regulations.



Lands. In its continuing effort to be a "good neighbor" to State and local governments, the processing of Recreation and Public Purpose applications will be a priority with the BLM during Fiscal Year 1986. Currently, the Bureau expects to exchange an estimated 215,000 acres, process 450 desert land entry applications, and offer 25,000 acres for sale.

Alaska Lands. Conveyance of land through the plan process will continue to develop in response to State of Alaska and Native Corporation requests to receive patent to lands.

The Alaska National Interest Lands Conservation Act (Section 901) required the State of Alaska to bring to lawsuit water navigability claims by the end of 1985. A 1-year extension is being requested by the State.

nal regulations implementing the policy that the Department of the Interior would not charge Alaska Native Corporations for certain submerged lands against entitlement were published in May 1985. A court on this topic filed by the Wilderness Society and Sierra Club is still pending.

program to inventory easements reserved by Section 5 of the Alaska Native Claims Settlement Act is being prepared. Administration of the easements must be determined and easements assigned to the responsible agency.

Right-of-Way Management. Efforts toward the completion of cost recovery regulations for FLPMA right-of-way processing costs and for right-of-way rental fees should be finished in Fiscal Year 1986. Further studies of costs for processing right-of-way applications will be undertaken during the year.

Recreation Management. Two new policy documents (recreation concession and special area policies) will be developed during Fiscal Year 1986, and a revised Grand National Historic Trail (Alaska) management plan will be prepared.

A new manual to aid BLM specialists and managers in issuance of special recreation permits will be prepared and issued. Additionally, a notice of a proposed rulemaking to change the appeals process for special recreation permits was published in the *Federal Register* in 1985. Comments will be reviewed and a final decision regarding the rulemaking change will be published in Fiscal Year 1986. Manuals and handbooks to outline BLM's Visual Resource Management System will be published.

Cultural Resource Management. Work will continue at the Anasazi Heritage Center near Cortez, Colorado. The center will be fully operational in Fiscal Year 1987 and is intended to store the millions of artifacts and bits of culture-related information recovered from excavations associated with the Dolores River Project. It also will have displays and research facilities that will be available for use by the general public and researchers once completed.

Wilderness Review. Increased attention and funding will be devoted to interim management of wilderness areas (WSA) in Fiscal Year 1986 to provide greater assurance that wilderness potential will not be degraded by unauthorized activities. Interim management plans are being developed for some WSA's to help anticipate possible problems and deal with them proactively.

BLM is now managing 20 units of the National Wilderness Preservation System. A new emphasis will be placed on wilderness management training and



The Whipple Mountains Wilderness Study Area in California

research to increase BLM's effectiveness in managing these areas and to prepare for greater responsibility as other areas are designated in the future. BLM is seeking the help of research organizations to address management problems specific to arid-land wilderness.

Rangeland Management. During Fiscal Year 1986, BLM and FS will be completing reports to Congress on their Grazing Fee Review and Evaluation and on the Experimental Stewardship Program, as required under the Public Rangelands Improvement Act of 1978.

Completing court-ordered schedules for resource management plans and environmental impact statements that analyze the effects of livestock grazing will be a major emphasis during the year. Other priorities include issuing, administering, and supervising grazing permits and leases; monitoring grazing allotments; implementing allotment management plans, and completing ecological site inventories on all public lands.

Wildlife Habitat Management. The highest priorities of the habitat management program will be to facilitate management of the public lands in a manner that provides for food and cover for fish and wildlife, and to ensure the survival and recovery of threatened and endangered species and the ecosystems upon which they depend. The primary means of accomplishing this will be coordination with other BLM programs to ensure that managers have needed wildlife information when making multiple-use decisions and by direct habitat management efforts.

Emphasis will be placed on development and implementation of recovery plans for threatened and endangered species, undertaking actions to prevent listing of

other lower priority Orders have recently established Orders. The BLM will oversee and coordinate the implementation of these Orders.

Eliminate the need for drilling, sir lease, id plugged prior

additional species wetland areas management effective effort continue

ment of riparian and more effective continued cooperation. BLM will continue to manage lands, materials, and



Caribou and mini-lakes dot the landscape in Alaska

Wild Horse and Burro Management. The central issue in the wild horse and burro program for Fiscal Year 1986 is the disposition of excess wild horses and burros removed from the public lands. At the end of Fiscal Year 1985, nearly 10,000 of these animals were being maintained in BLM corrals and contract facilities at a cost to the Federal Government of more than \$20,000 per day. Although these animals are available for adoption, some of them may never be placed in private care because their age or some other trait makes them undesirable to most potential adopters. Meanwhile, additional removals of excess animals are necessary to protect rangeland resources.

The Wild Free-Roaming Horse and Burro Act directs that healthy excess animals for which no adoption demand exists be destroyed in the most humane and cost-efficient manner. However, a moratorium on such destruction has been in place since 1982, while alternatives to destruction were sought. Since 1984, a regulation allowing fee reductions or waivers for animals unadopted at the standard fee has helped to place approximately 3,600 of these animals, but has not reduced their numbers sufficiently to eliminate costly long-term maintenance of unadopted animals. During Fiscal Year 1986, BLM must explore other approaches to lower these costs and to allow greater program emphasis on the management of wild-roaming herds on the public lands.

Law Enforcement. In response to the President's commitment to combat the drug problem in the United States, BLM will intensify efforts to eradicate marijuana on BLM-administered lands. Included in the project will be a campaign to increase the awareness and education of the public regarding cultivation of marijuana on public lands.

BLM will be making a continued effort to expand the law enforcement ranger program beyond the California Desert Conservation Area into other areas of the public lands where there is a need for more concerted resource protection and visitor services programs.

Engineering Services. With the exception of survey design, and anticipated construction of a new 40,000 sq. ft. District Office complex in Fairbanks, Alaska, BLM will not be constructing any new buildings, recreation sites, or transportation facilities (roads or bridges) during Fiscal Year 1986.

BLM continues to provide support to field personnel and the public by producing a variety of mapping, remote sensing, and photogrammetric products and services. BLM's primary map base (1:100,000 scale surface and subsurface maps) will provide users with nearly completed coverage by the end of Fiscal Year 1986, and the first stages of automation will begin. The requirements for graphic and alphanumeric data to assist in the management of public lands is large and, as a result, significant efforts are being made to automate data capture, handling, storage, and evaluation techniques.

Information Resources Management. During Fiscal Year 1986, Information Resources Management will emphasize continuation of the ADP/Telecommunications Modernization Study, completion of competitive procurement activities to select commercial long distance phone carriers in an effort to reduce the rate of increase in commercial toll costs; continuation of Information Systems Reviews in three additional States to identify and implement IRM program improvements; issuance of a new Life Cycle Management policy that will emphasize management and user involvement in system development activities; and the strengthening and implementation of BLM's ADP Security Program.

Summary. The challenges facing BLM are many and varied. As a multiple-use agency administering millions of acres of land and its diverse resources, BLM is engaged in a continuing struggle to balance needed resource development with resource protection. Fortunately, the agency is not alone. Other Federal agencies, State and local governments, private organizations, and the general public play an active role in helping BLM manage the public lands. Consultation and coordination will continue to be of major importance during Fiscal Year 1986.

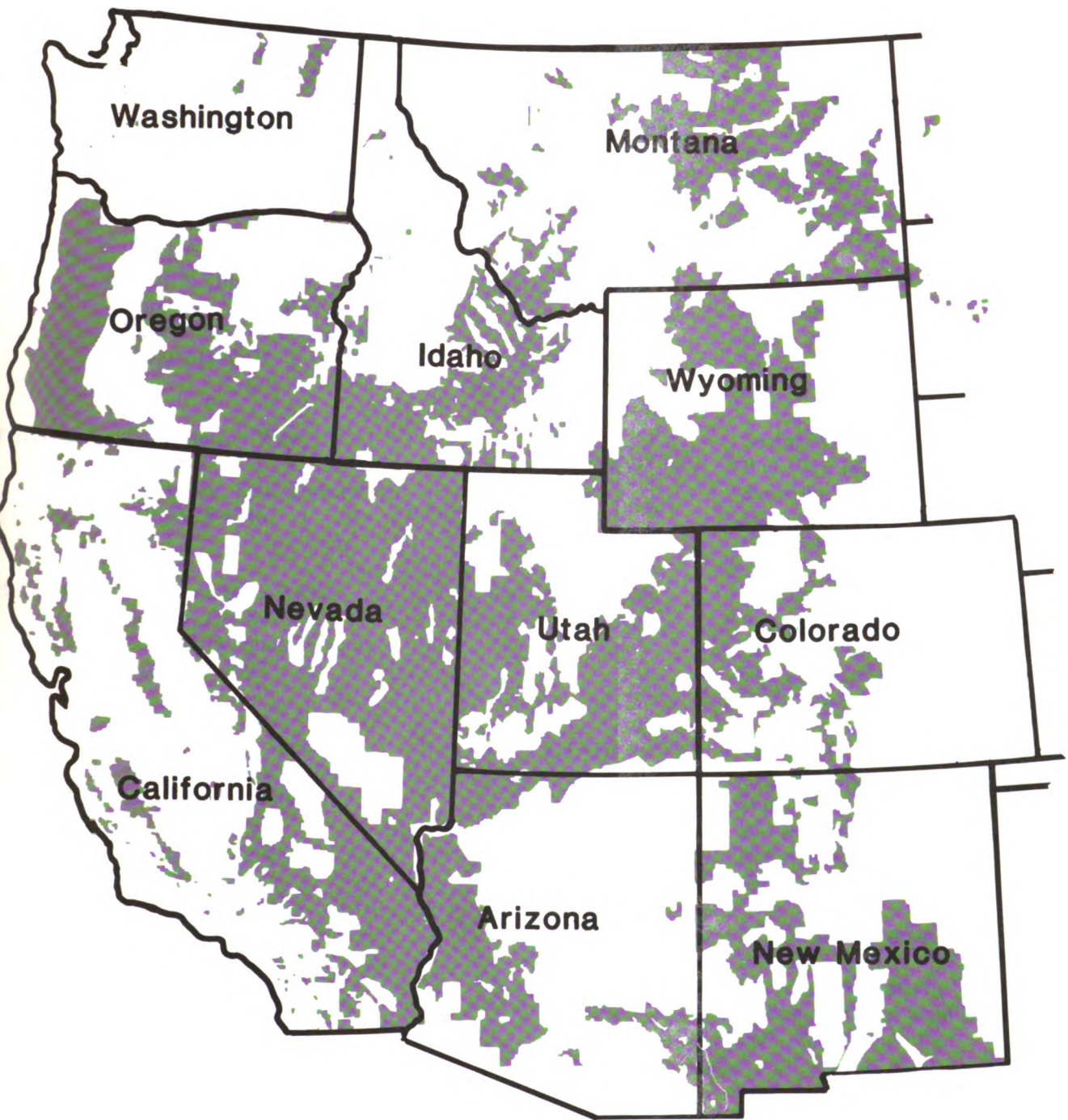
BLM-administered lands ARE unique, they ARE valuable, they ARE important. And BLM encourages you to become more involved in their management. Whether as a volunteer, a permittee or lessee, a recreationist, an advisory group member, or as an American citizen, you can make a difference. Take pride in your public lands—they deserve it!



Photo by Joe Ross, BLM Las Vegas District Office

Gold Buttes/Virgin Valley area in Nevada

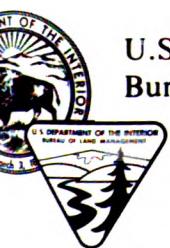
PUBLIC LANDS IN THE WESTERN STATES



Legend



LANDS MANAGED BY BLM



U.S. Department of the Interior
Bureau of Land Management

**BUREAU OF LAND MANAGEMENT
STATE OFFICES**

AK: 701 C Street Box 13
Anchorage, AK 99513
Michael Penfold, State Director
(907) 271-5555

MONTANA: 222 N. 32 Street
P.O. Box 36800
Billings, MT 59107
Dean Stepanek, State Director
(406) 657-6561

AZ: 3707 N. 7th Street
Phoenix, AZ 85014
Dean Bibbes, State Director
(602) 241-5504

NEVADA: 850 Harvard Way
P.O. Box 12000
Reno, NV 89520
Ed Spang, State Director
(702) 784-5311

CA: 2800 Cottage Way
Sacramento, CA 95825
Ed Hastey, State Director
(916) 978-4746

NEW MEXICO: South Federal Place
P.O. Box 1449
Santa Fe, NM 87501
Monte Jordan, Acting State Director
(505) 988-6316

CO: 2020 Arapahoe Street
Denver, CO 80205
Neil Morck, State Director
(303) 294-7092

OREGON: 825 NE Multnomah Street
P.O. Box 2965
Portland, OR 97208
Charles Luscher, State Director
(503) 231-6274

VA: 350 S. Pickett Street
Alexandria, VA 22304
Curtis Jones, Director
(703) 274-0190

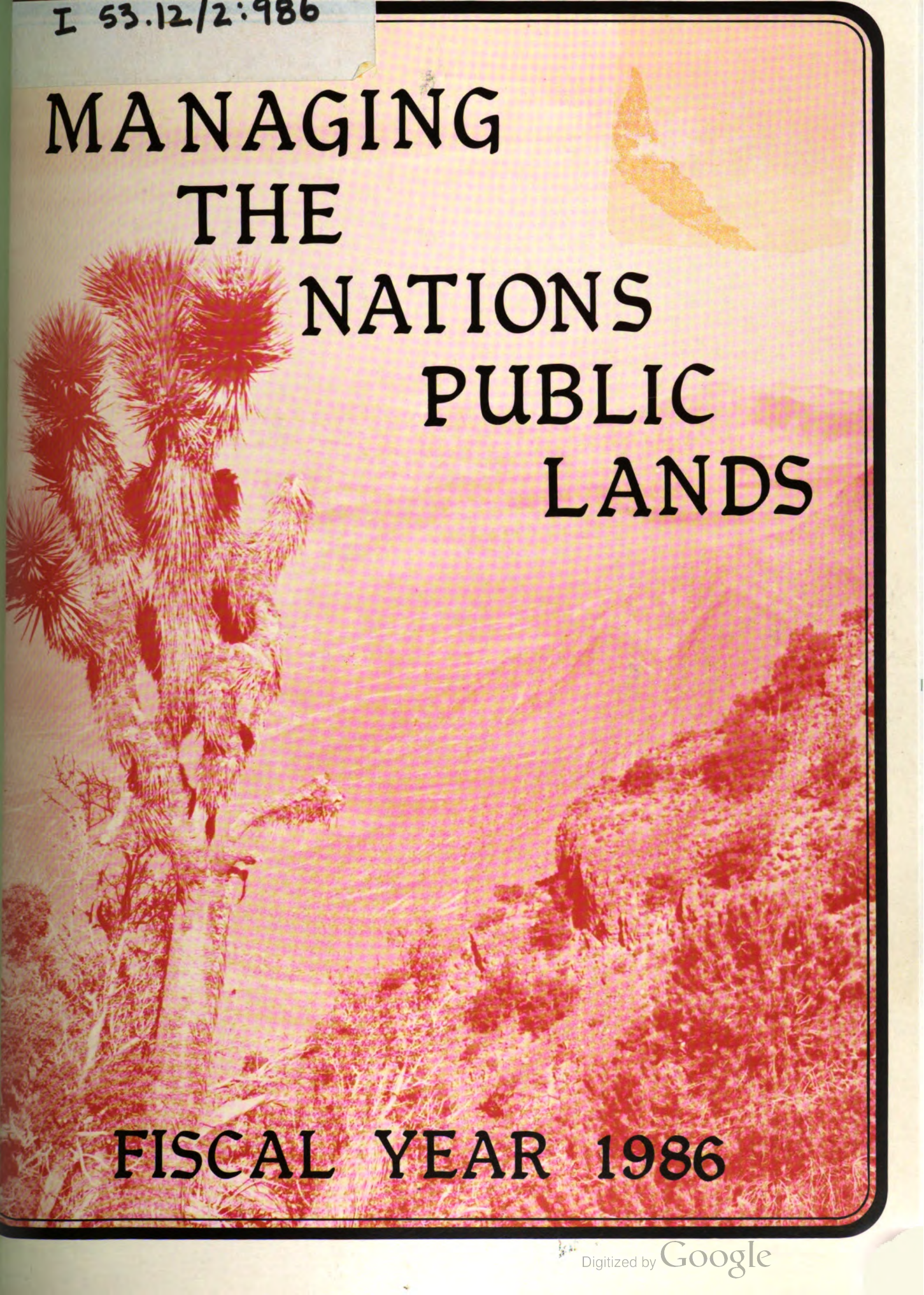
UTAH: 324 South State Street
CFS Financial Center Building
Suite 301
Salt Lake City, UT 84111-2303
Roland Robison, State Director
(801) 524-5311

3380 Americana Terrace
Boise, ID 83706
Del Vail, State Director
(208) 334-1771

WYOMING: 2515 Warren Avenue
P.O. Box 1828
Cheyenne, WY 82001
Hillary A. Oden, State Director
(307) 772-2111

DEPOSIT
SER 11 186
S 186

I 53.12/2.986



MANAGING THE NATIONS PUBLIC LANDS

FISCAL YEAR 1986

The Bureau of Land Management is responsible for the balanced management of the Public Lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield—a combination of uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural scenic, scientific and cultural values.

In 1986, the Bureau of Land Management celebrated its 40th anniversary as a Public Land management agency and the 10th anniversary of the Federal Land Policy and Management Act, the agency's primary legislative mandate for managing the Public Lands.

MANAGING THE NATION'S PUBLIC LANDS FISCAL YEAR 1986

This report to the Congress of the United States on the management of the Nation's Public Lands is submitted pursuant to requirements of the Federal Land Policy and Management Act of 1976 and covers the period from October 1, 1985 through September 30, 1986.

"A Nation may be said to consist of its territory, its people, and its law. The territory is the only part which is of certain durability."

*Abraham Lincoln
State of the Union Address
1862*

PUBLIC LANDS FISCAL YEAR 1986

Contents

I. Introduction	1
II. Fiscal Year 1986 Progress Report	4
A. Bureauwide Initiatives	4
Planning	4
Areas of Critical Environmental Concern	4
Automated Land and Mineral Record System	5
Riparian Area Management	6
Hazardous Materials Management	6
BLM/Forest Service Interchange	7
B. Energy and Minerals Programs	8
Oil and Gas Management	8
Geothermal Management	9
Coal Management	10
Oil Shale Management	11
Tar Sand Management	12
Nonenergy Minerals Management	12
Mineral Materials Management	13
Mining Law Administration	13
C. Land Programs	14
Lands	14
Alaska Lands	15
Rights-of-Way	16
Acquisition	17
Recreation Management	17
Cultural Resource Management	19
Paleontological Resource Management	20
Wilderness Review and Management	20
D. Renewable Resource Programs	21
Rangeland Management	21
Forest Management	23
Wildlife Habitat Management	23
Wild Horse and Burro Management	24
E. Support Services	27
Law Enforcement	27
Cadastral Survey	27
Fire and Aviation Management	28
Engineering Services	29
Information Resources Management	29
Volunteers and Other Contributed Services	30
F. General Administration	30
Administrative Services	30
Financial Management	31
Evaluations/Audits	32
Management Efficiencies	32
Personnel Management	33
III. Financial Management	33
A. Appropriations and Expenditures	33
B. Revenues and Receipts	37
C. State and Local Shares	37
Revenue Sharing	37
Payments in Lieu of Taxes	37
IV. A Look Ahead	41
Appendix A	45
Appendix B	52

INTRODUCTION

In the last half of the 18th century and the first half of the 19th century, the United States Government acquired most of the land west of the Appalachian Mountains, eventually owning more than 1.5 billion acres of public domain—lands which had never been under private ownership. Although the Federal Government has since disposed of most of this acreage to private citizens, industry, and State and local governments, some of the public domain lands were dedicated to establish the National Parks, National Forests, National Wildlife Refuges, military compounds, and other Government facilities. However, approximately 272 million acres—about one-eighth of the Nation—remain today as Public Lands, which are managed by the Bureau of Land Management (BLM) for multiple uses. In addition, BLM also manages the mineral estate underlying another 300 million acres of lands administered or owned by other agencies or private interests. Most of this acreage is located in the western States, including Alaska, although small parcels are scattered across the Eastern States.



In 1812, Congress established the General Land Office to administer the public domain, with the primary purpose of passing public domain lands into private ownership. The passage of the Taylor Grazing Act in 1934 and establishment of the U.S. Grazing Service provided for active range management on the public domain, but this was seen as interim management of the lands pending their final disposal into private federal ownership.

In 1946, the Presidential Reorganization Plan No. 2 merged the Grazing Service with the General Land

Office to create the Bureau of Land Management (BLM), within the Department of the Interior. BLM became responsible for managing all the resources on the Nation's public domain lands; however, with more than 2,000 unrelated and often conflicting laws pertaining to the public domain, the agency had no unified legislative authority to manage those lands.

When Congress enacted the Federal Land Policy and Management Act of 1976 (FLPMA), it established a coherent legislative mandate for managing the Public Lands and made BLM a true multiple-use agency. The law recognized that the Public Lands are a national asset, providing goods, services, and vast natural resources for millions of Americans:



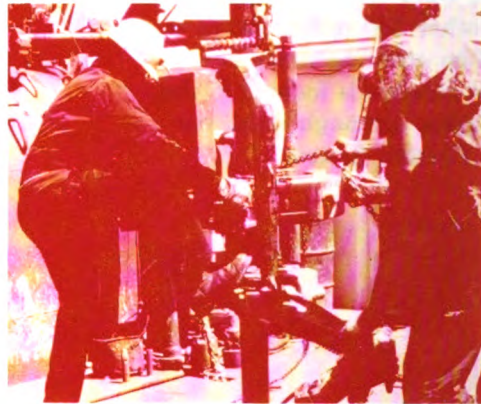
Photographer: Terry F. Knight

“... Congress declares that it is the policy of the United States that ...

“the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use ...

“the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands ...”

(FLPMA, Section 102[a][8] and 101[a][12])



BLM's planning and decision making process provides for many uses of the Public Lands: (top left) A BLM archaeologist sifts cultural site material; (lower left) backpacker enjoys scenic solitude; (right) Oil rig crew working on exploratory drill.

FLPMA provides a clear-cut policy that Public Lands are to be retained in Federal ownership and managed by BLM for all Americans, with the full participation of the public and a careful balancing of the interests of competing users.

With 1986 marking both BLM's 40th birthday and FLPMA's 10th anniversary, it is a good time to look at what assets BLM is managing today for the American public:

- about 1.4 billion barrels of proven oil reserves
- approximately 12.5 trillion cubic feet of proven natural gas reserves
- 10 million animal unit months of forage to support about 4.3 million head of domestic livestock
- the major portion of the undiscovered but geo-

logically predictable domestic deposits of aluminum, antimony, beryllium, bismuth, cadmium, chromium, cobalt, copper, fluorspar, lead, manganese, mercury, molybdenum, nickel, platinum group metals, silver, tungsten, and vanadium

- almost 8 million acres of commercial forest land with a producing capacity of about 1.4 billion board feet each year
- about 80 percent of the Nation's oil shale
- more than 200 designated areas of critical environmental concern
- all 11 of the Nation's major tar sand sites
- thousands of unique recreational areas, including 15 Wild and Scenic Rivers, 21 National Trails, almost 1,500 recreation sites, 65,000 miles of roads suitable for recreation travel, over 4 million acres of lakes and reservoirs, and thousands of

areas open to a wide variety of recreational uses

- in the Western States alone, about one-third of the Nation's total coal supply, plus substantial eastern coal reserves
- approximately 370,000 acres of designated wilderness and more than 25 million acres under study for possible designation
- some 35 percent of the Nation's uranium reserves
- more than 350 archaeological and historical sites recorded in the National Register of Historic Places and more than 1,200 properties considered to have nationally significant values
- world class deposits of phosphate, sodium, lead, zinc, and potash
- habitat for one out of every five big game animals in the United States, including many caribou,

own and grizzly bears, desert bighorn sheep,
goose, mule deer, and antelope
arly 85,000 miles of streams containing trout,
mon, and other sport fish—enough to encircle
e Earth three and one-half times
rospective sources of geothermal energy on
ore than 55 million acres, plus 2 million acres
known geothermal resource areas
proximately 96 percent of all wild horses and
ros managed, protected, and controlled under
e Wild Free-Roaming Horse and Burro Act
1971

e magnitude and value of these resources fre-
ently leads to conflicting demands and uses for the
ic Lands. The FLPMA mandate for multiple-use
agement is BLM's most powerful tool for reconcil-
he differences of opinion about how the Public
s are to be managed. Multiple use facilitates the
lopment of needed resources, while protecting
r resource values from inadvertent damage or
uction. Through a planning, decisionmaking, and
agement process that balances alternative uses
involves the public at all steps, BLM can provide
rtunities for many different uses of the Public
s and ensure that the many resources of the
ic Lands will remain available to the public into
uture.

stellar example of effective multiple-use man-
ement on the Public Lands is the California Desert
ervation Area, which was established by
gress through FLPMA. As required by FLPMA,
prepared and, in 1980, began to implement a
prehensive plan to manage the Public Lands
in the area. The plan is a prime example of
eration between the Federal Government and the
ens of the United States, who together identified
multiple uses of the desert and developed the
etwork for managing those uses.

or the last six years the California Desert Plan has
ed as a blueprint for balancing the public's rights,
leges and needs on the Public Lands and the
y significant resource values of the California
ert Conservation Area. Through this plan, BLM is
to maintain the public's opportunities to enjoy
use the Public Lands of the California Desert,
ther for outdoor recreation, mineral production, or
stock grazing.

President Ronald Reagan noted in 1986, on the
anniversary of establishment of the California
ert Conservation Area, "Recognizing both the
s of the people and the need to preserve natural
urces, the California Desert Plan was developed
ugh both innovation and active citizen involve-
t. Those who developed the Desert Plan were

dedicated to multiple use of our public lands and
sustained yields and were able to develop an effective
framework which balances resources, use, develop-
ment and protection. As a result, management of this
area serves as a model for all public lands."

As in the California Desert Conservation Area, BLM
manages all the Nation's Public Lands to meet the
needs and desires of the American public. And as with
the California Desert Plan, American citizens can play
a critical part in Public Land management—today and
into the future.

Active involvement in planning for, managing, and
caring for the Public Lands is a positive way to partic-
ipate in President Reagan's Take Pride in America
campaign—a national public awareness campaign to
encourage everyone to take pride in the Nation's
natural and cultural resources. How Americans deal
with the Public Lands today and tomorrow will deter-
mine what those lands will offer on BLM's 50th and
80th and 100th birthdays. BLM encourages all
citizens to learn more about Public Lands, to become
involved in their management, and to enjoy those
lands.

The following pages provide a good idea of Public
Land management during the Fiscal Year 1986, and
of the issues and initiatives BLM faces during Fiscal
Year 1987. In recognition of BLM's 40th anniversary,
the following pages also provide brief anniversary por-
traits of BLM's public land management programs.
Many of these programs are older than BLM itself,
while others have been developed in more recent
years to meet new public demands or policies. For ad-
ditional perspective, the major legislative mandates af-
fecting BLM programs, in particular FLPMA, are also
briefly discussed. For more information about BLM
and the Public Lands, please call, visit, or write your
local BLM office.



II. FISCAL YEAR 1986 PROGRESS REPORT

A. Bureauwide Initiatives

Planning

An anniversary portrait . . . BLM began planning on the Public Lands in the late 1960s; today more than 80 percent of the Public Lands are covered by approved land use plans, including 32 resource management plans completed since 1984 under Federal Land Policy and Management Act (FLPMA) regulations.

FLPMA, enacted in 1976, specifically required the development and maintenance of land use plans for the Public Lands, placing special emphasis on public participation. In 1979, planning regulations were issued establishing resource management plans as the basic planning document. Other legislation containing planning requirements include the National Environmental Policy Act of 1969, the Federal Coal Leasing Amendments Act of 1976, the Surface Mining Control and Reclamation Act of 1977, and the Public Rangelands Improvement Act of 1978.

Planning helps the local manager, Public Land users, and other interested people to resolve resource management conflicts and land use issues. BLM seeks to improve resource management decisions on the Public Lands through a planning process that includes participation by the public and Federal, State, and local governments; use of the best available data; and analysis of alternatives. Resource management plans are designed to guide and control management actions relating to the increasingly competitive demands for Public Lands, while at the same time protecting and ensuring their long-term productivity.

Thirty-two resource management plans had been approved by the end of Fiscal Year 1986. An additional 6 plans were in draft form and available for public review, while 14 were in final form and awaiting State Director approval. With close to 50 plans completed or near completion, BLM is placing increased emphasis on plan implementation, monitoring, and maintenance. In Fiscal Year 1986, the "Using the Plan" training course was offered twice at the Phoenix Training Center, reaching more than 60 individuals from 15 States.

Also in Fiscal Year 1986, BLM issued planning guidelines for the renewable resource, land and rights-of-way, nonenergy leasable minerals, and air and fire management programs; these guidelines supplement overall planning guidance and are designed to improve the content, program coverage, and com-

parability of future resource management plans and amendments. Guidance for the remaining resource programs was issued in draft for BLM field office and public review.

The planning program also assumed overall program responsibility for areas of critical environmental concern.

Areas of Critical Environmental Concern

An anniversary portrait . . . since the enactment of FLPMA in 1976, BLM has designated 205 areas of critical environmental concern. Special management prescriptions have been developed for each to protect the identified special values.

FLPMA requires that BLM give priority to the designation and protection of areas of critical environmental concern. Such areas are designated to protect and prevent irreparable damage to important historical, cultural, or scenic values; fish and wildlife resources or other natural systems or processes; or to identify natural hazards. Natural areas may also be designated under FLPMA to maintain natural diversity and facilitate scientific research.



BLM's planning process provides for management of areas with special values, such as Jacumba Outstanding Natural Area in California.

Areas of critical environmental concern and natural resources are identified through BLM's planning process. Management prescriptions for each area are also identified and tailored to reflect the site-specific resources and local circumstances. Protection of the identified values is ensured whenever subsequent uses are undertaken or authorized.

During Fiscal Year 1986, 44 areas comprising more than 3 million acres of Public Land were designated as areas of critical environmental concern. This more than doubled the amount of Public Land accorded

tion and reflects BLM's vigorous commitment appropriate use of this management measure. encouragement from the National Public Lands y Council, BLM also initiated an effort to and improve existing guidance for designation management of areas of critical environmental n. The proposed changes will be finalized Fiscal Year 1987 after review by BLM field and interested members of the public.

Automated Land and Mineral Record System

anniversary portrait . . . when the Government Office merged with the Grazing Service in to form BLM, land records dating back to the s came under BLM's administration. Integrating records into a workable system through the Automated Land and Mineral Record System will de a major tool for Public Land managers over s next 40 years.

maintains more than 250,000 cubic feet of —1 billion documents that are the heart of ing cases such as oil and gas leases, rights-of- ing claims, and other authorizations to use lic Lands. The Automated Land and Mineral System, to be implemented over the next few will automate much of this records work, sig- ly increasing efficiency.

Automated Land and Mineral Record System is effective investment in implementing modern s practices in BLM. During Fiscal Year 1986, completed and sent to Congress the feasibility



An Automated Land and Mineral Record System display can combine a master title plat with topographic information.

study documenting the benefits—over \$850 million through the system's life cycle, with the cost being approximately \$100 million to implement an auto- mated system rather than perpetuate the paper-based system.

In the last year, BLM also put into operation a prototype system that computerized a portion of the records work. It serves to clarify what BLM needs should be met by the Automated Land and Mineral Record System and what details must be included in the contracts that BLM will use to procure the neces- sary software and hardware from the private sector. The prototype also demonstrates the benefits of auto- mating the manual system now in place in BLM.

In the last year, BLM also put into operation a prototype system that computerized a portion of the records work. It serves to clarify what BLM needs should be met by the Automated Land and Mineral Record System and what details must be included in the con- tracts that BLM will use to procure the necessary soft- ware and hardware from the private sector. The prototype also demonstrates the benefits of automat- ing the manual system now in place in BLM.

BLM has created an automated data base of land status in New Mexico and Arizona, and initiated simi- lar data collection efforts in Montana, Idaho, and Nevada. Collection of status data requires several years. Utah started its status data collection effort in Fiscal Year 1985 and anticipates having a complete automated data base by the end of Fiscal Year 1988.

The Geographic Information System staff was com- bined with the Automated Land and Mineral Record System project staff during Fiscal Year 1986 so that the automation of resource data can be more closely integrated with the records data. A demonstration project has been initiated in the Farmington (New Mexico) Resource Area to show, in a field office set- ting, how BLM's automation of records and resource management information will improve the efficiency and quality of our decisionmaking processes.



The Automated Lands and Minerals Record System is a top ty within the Department of the Interior.



A temporary exclosure is one method for improving riparian habitat upstream.

Riparian Area Management

An anniversary portrait . . . riparian areas are among the most resilient of ecosystems on the Public Lands. For example, Camp Creek in central Oregon was described in 1875 as a grassy meadow with a number of marshes. In 1903, the same area was described as a deep, wide gully, with the meadow and marshes converted to sagebrush and rabbitbrush. BLM began an effort to improve the riparian area in 1965, and within 20 years, the streambed had risen more than six feet, the number of vegetative species present increased more than 260 percent, and wildlife population levels expanded greatly.

Riparian areas—the “green zones” along the banks of rivers and streams and around springs, bogs, wet meadows, lakes and ponds—provide key benefits for Public Land resources. Healthy riparian systems act like a sponge by retaining water in streambanks and ground water aquifers, purify the water as it moves through vegetation, reduce sediment loads and enhance soil stability, moderate climatic extremes, and provide a diversity of plant species and habitat for fish and wildlife species.

BLM placed a great deal of emphasis during Fiscal Year 1986 on establishing riparian demonstration areas to evaluate and demonstrate various management practices. In July, BLM State Directors were asked to select areas for the project, with the goal of showing the different practices that are effective in improving riparian areas, the capability of riparian areas to respond to management efforts, and the variety of benefits and values that are associated with healthy and productive riparian areas. Many of these

areas have been established with the cooperation of local Public Land users and other interested individuals.

Management techniques being studied include rotation grazing systems, willow plantings along streambanks, construction of log and rock check-dams, clearing of streambed debris, redistribution of livestock waters, installation of waterbars in roadways to control erosion into streams, restriction of off-road vehicle use, temporary grazing exclusions, and introduction of nature's engineer—the beaver—to build instream structures.

Monitoring of riparian areas is being accomplished through a variety of techniques, including photo point vegetation transects, aquatic insect sampling, and level aerial photography.

BLM is encouraging the involvement of sportsmen groups, Scouts, college students, conservation organizations, and Public Land users in all phases of riparian area management. Many volunteers help the agency construct projects, plant trees and shrubs, and assist in monitoring riparian areas.

BLM's Riparian Area Management Task Force, established during Fiscal Year 1985, continued its work during the past fiscal year. Emphasis was placed on classification, inventory, monitoring, and management treatment. In addition, four States conducted riparian workshops during the year.

Hazardous Materials Management

Hazardous materials management is a program that affects many other BLM programs, including lands, minerals; forestry; range; soil, water, and air; engineering; and resource protection. The program is based on the requirement for compliance with the Resource Conservation and Recovery Act, as amended, which regulates treatment, storage, and disposal of hazardous wastes; the Comprehensive Environmental Response Compensation and Liability Act, which regulates cleanup of spills and abandoned waste sites; and many other Federal and State laws that regulate the management of hazardous materials.

The goals of the program include:

- protection of the health and safety of the public, Federal land users, neighbors, and BLM employees, as well as protection of the environment and natural resources;
- compliance with applicable Federal and State laws, regulations, and orders, within the context of BLM's statutory mission as a Federal natural resource manager; and
- cleaning up past problems, controlling current

problems, and minimizing future problems of hazardous materials on Public Lands in a cost-effective manner.

ing Fiscal Year 1986, program activities for hazardous materials management continued in all State Offices. Field officials responded to and handled 12 emergency situations on the Public

er significant accomplishments included conducting for 12 preliminary assessments and 11 site investigations on Public Lands with the highest potential for hazardous waste contamination; continuing the inventory of sites suspected to be contaminated; providing safety training and material for field staff; working with the States to initiate further studies of appropriate sites; providing extensive policy, technical, program assistance and support to other BLM divisions on the hazardous materials aspects of their programs; and developing a strategy directed at elimination of the backlog of sites requiring assessment and investigative analysis.

Issues yet to be resolved include the questions of the most effective means for cleanup of toxic or hazardous sites on Federal lands, improved communication and coordination, and funding. High-level discussions between the Environmental Protection Agency, BLM, Forest Service, and other Federal land-managing agencies would be pursued to seek ways of resolving these issues.

Forest Service Interchange

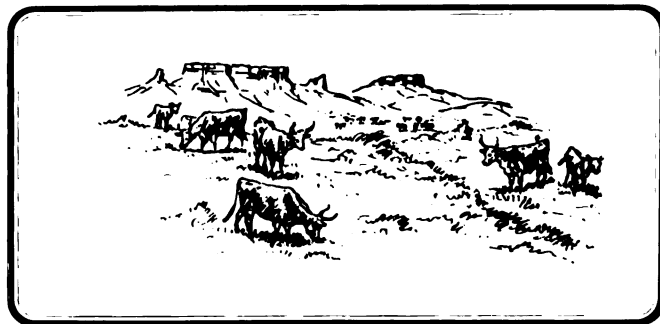
anniversary portrait . . . the proposed Forest Service Interchange is the Federal Government's latest initiative in its continuing efforts to enhance public service, improve management efficiency, and save money—efforts that began with the establishment of the General Land Office in

and the Department of Agriculture's Forest Service have developed a proposal to transfer certain lands and related management responsibilities between the two agencies. The proposal is the result of an agency analysis that included land acreage, number of personnel, office locations, and program capabilities.

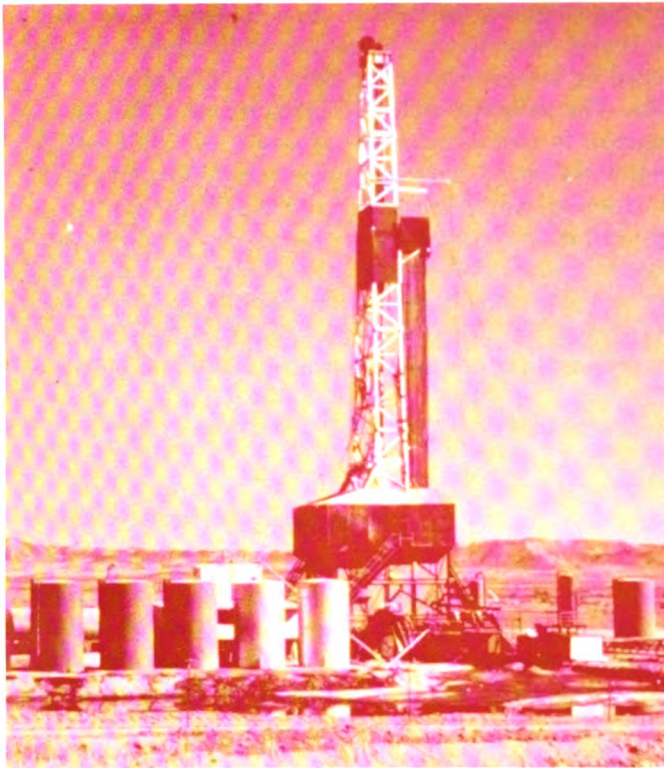
and Forest Service offices in about 35 towns where both agencies have offices would be consolidating one agency rather than two. Eventually, 50 positions would be eliminated. By reducing the number of jurisdictions, Interchange would improve service to the public and ensure more efficient management of public land resources. It would also

reduce agency costs between \$13 million and \$15 million annually.

In February 1986, the legislative proposal to transfer approximately 25 million acres between BLM and the Forest Service was submitted to Congress, accompanied by a legislative environmental impact statement. The proposal reflected adjustments made in response to comments and concerns, and the environmental statement analyzed the potential impacts of the proposal and several alternatives. The proposal was introduced in both Houses of Congress and was referred to committees. Because no action was taken by the Congress on the proposal during the 99th Congress, BLM and the Forest Service intend to resubmit the proposal for consideration in the 100th Congress.



B. Energy and Minerals Programs



BLM received only 2,500 applications for permits to drill in 1986.

Oil and Gas Management

An anniversary portrait . . . BLM traces its oil and gas management authority to the Mineral Leasing Act of 1920, which opened public domain lands to mineral leasing. In recent years, the drop in oil prices has caused a decline in the public's interest in acquiring and holding oil and gas leases. As a result, the number of leases in effect and the amount of land now under lease are approximately the same as in 1979, and about 68 percent of the peak in 1982. To protect the Nation's oil and gas resources, BLM has allowed the suspension of production on about 1 percent of the Federal leases to prevent premature abandonment of leases on which production is currently unprofitable.

Oil and Gas Leasing

The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947, as amended, give BLM responsibility for oil and gas leasing on about 600 million acres of Public Lands, national forests, and private lands where mineral rights have been retained by the Federal

Government. Both competitive and noncompetitive oil and gas leasing are covered in these two Acts.

During Fiscal Year 1986, approximately 8,900 leases covering about 10 million acres of Federal land were issued, including 1,200 leases covering 350,000 acres by competitive bidding (bringing in approximately \$26.6 million in bonus bids), 1,300 leases covering 2.1 million acres by over-the-counter leasing, and 6,400 leases covering 7.4 million acres under the simultaneous oil and gas leasing system.

Overall in 1986, onshore oil and gas leases generated approximately \$800 million in bonus, rent, and royalty payments. At the end of Fiscal Year 1986, approximately 104,000 leases covering 95 million acres were in effect. This is a decline of 10 percent from the 1985 level of leasing activity. The number of lease terminations, relinquishments, and expirations during the year was greater than the number of new leases issued, so that by the end of Fiscal Year 1986 there were 23 percent fewer acres under lease than at the beginning of the year. During Fiscal Year 1986, BLM eliminated its backlog of pending lease assignments.

As in 1985, a market analysis prepared by BLM resulted in a decision not to hold a lease sale in the National Petroleum Reserve, Alaska, in 1986.

Oil and Gas Operations

The Federal Oil and Gas Royalty Management Act of 1982 was designed to assure proper and timely revenue accountability for production from onshore Federal and Indian oil and gas leases; prescribe onshore field operations requirements for inspections and enforcement actions; establish the basis for cooperation with States and Indian tribes for onshore Federal leases; and establish duties of lessees, operators and others involved in the production, storage, measurement and transportation or sale of oil and gas from Federal onshore and Indian leases. Proposed regulations for implementing the Act were published in January 1986; they covered site security, noncompliance, penalties for such noncompliance or nonabandonment, and procedures for notice, review, or relief.

BLM and the Department of the Interior continued to emphasize that the necessary guidance and standards against which inspections will be made and enforcement actions taken, are to be provided in Onshore Oil and Gas Orders. The highest priority orders to be developed and issued are those for site security and for drilling operations. Oil measurement and gas measurement orders will follow.

During Fiscal Year 1986, the national inspection was to inspect all high priority items at least. That goal was achieved—without diminishing the importance of the other types of inspections, such as drilling and abandonment of operations.

During 1986, BLM also conducted a test of whether production accountability inspections should be conducted separately from routine detailed inspections. As a result of this test, BLM has demonstrated the effectiveness of its current approach to inspections.

Section 205 of the Federal Oil and Gas Royalty Management Act provides that the Secretary of the Interior may delegate all or part of his authority for the supervision and investigations of oil and gas lease sites to the State governments. BLM held meetings with State representatives to determine the level of State interest in the program and to determine the types of activities that the States are interested in seeing delegated. The proposed regulations were developed during Fiscal Year 1986 and published in October 1986.

Cooperative agreements pursuant to Section 202 of the Federal Oil and Gas Royalty Management Act are in effect with several Indian tribes. During Fiscal Year 1986, inspector trainees from the Navajo, Hopi, and Apache, Southern Ute, Ute-Mountain-Ute, and Shoshone tribes attended BLM's training courses. BLM will continue to accept State and tribal trainees into BLM's inspector training program.

During Fiscal Year 1986, the overall decline in drilling operations that was experienced nationally extended to Federal and Indian lands. In contrast to the 10,000 applications for permits to drill processed in previous years, BLM received only 2,500 applications in 1986.

Lands contain 1.4 billion barrels of proven oil reserves.



The 1986 collapse of oil prices left a potentially large number of wells on Federal and Indian lands in questionable status with regard to the economic viability of continued production. At the Secretary's request, the Department undertook a review of how these resources could be protected. As the result of that review, BLM decided that production requirements on leases could be suspended if continued production was likely to result in the premature abandonment of a lease. This action has resulted in production suspensions on about 1 percent of Federal leases with a temporary loss of approximately 4,000 barrels of oil daily. Some of this production will be recaptured in future years.

During Fiscal Year 1986, BLM devoted considerable effort to implementing many of the recommendations developed by Keplinger Technology Consultants during the previous two years with respect to classification of Known Geologic Structures and drainage review. In addition, in 1986 BLM began to aggressively identify all wells that are potentially draining Federal resources. BLM also successfully completed a pilot test of the Potential Drainage Detection System, a computer-based system that identifies all potentially offending wells. The test of the system showed that BLM could automate its oil and gas field maps and use these maps for potential drainage detection.

During Fiscal Year 1986, onshore oil and gas leases generated about \$800 million in bonus, rent, and royalty payments to the Federal Government, 50 percent (or, in the case of Alaska, 90 percent) of which is returned to the States where production occurs. Another Interior agency, the Minerals Management Service, collects and distributes these receipts.

As of June 30, 1986, there were approximately 50,000 producible completions, that is, wells demonstrated capable of producing oil or gas in paying quantities. Of these, approximately 23,500 producible oil completions and 18,000 producible gas completions were on Federal lands, and about 5,000 producible oil completions and 3,500 producible gas completions were on Indian lands. In addition, BLM also was responsible for 7,600 service (injection/disposal) wells on approximately 22,000 producible leases (18,000 on Federal lands and 4,000 on Indian lands).

Geothermal Management

An anniversary portrait . . . the Geothermal Steam Act of 1970 provided BLM authority to issue leases on public, withdrawn, and acquired lands administered by the Departments of the Interior and Agriculture. By the end of Fiscal Year 1986, 1,212 geothermal leases covering 2 million acres were in effect.

A total of 15 leases covering 31,000 acres were leased competitively and 129 leases covering 211,000 acres were issued noncompetitively in Fiscal Year 1986. Approximately \$5.7 million was received in bonuses and rents from 10 Western States. More than \$16.5 million in royalties was received from California, Nevada, and Utah leases, with approximately 755 megawatts produced; about 98 percent of the production and royalties came from California leases.



Geothermal plants in California produced more than 700 megawatts of electricity in 1986. Photographer: Tony Staed

Coal Management

An anniversary portrait . . . under the Mineral Leasing Act of 1920, coal mining operations on Federal land were supervised by the Bureau of Mines until this function was transferred to the Geological Survey in 1925, then transferred again to the new Minerals Management Service in 1982, and then in turn passed on to BLM in 1982 under Secretarial Order No. 3087. Coal production from Federal lands has increased from 7.4 million tons in 1970 to 163.9 million tons in 1986; as a result, over \$50 million will be returned to the States in which production occurred in 1986.

Coal Leasing

The Federal Government owns about one-third of the Nation's coal. Approximately 75.6 million acres of coal are owned and administered by the Federal Government, principally in the Western States. These western Federal coal lands contain as much as 60 percent of the total western reserves. The Federal Government also indirectly affects the use of at least an additional 20 percent of the coal in the West. Most of these Federal coal reserves are concentrated in five western Federal coal production regions located in Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming.

BLM serves as the focal point for the Department the Interior's coal leasing program and is responsible for assuring coordination with State and local governments, industry, conservation groups, and other agencies concerned with the management of Federal coal. The Mineral Leasing Act of 1920, the Federal Coal Leasing Amendments Act of 1976, the Federal Land Policy and Management Act of 1976, and the Surface Mining Control and Reclamation Act of 1977 provide the statutory basis for Federal coal leasing.

The major achievement during Fiscal Year 1986 was the announcement of a framework to resume the Federal coal leasing program following a two-year suspension of regional coal sales. The suspension had enabled the Department of the Interior to complete a thorough and detailed analysis of the program. Between early 1984 and early 1986, Federal coal leasing was restricted to emergency leasing and to processing coal preference right lease applications, exploration licenses, congressionally authorized coal lease and fee coal exchanges. This restriction allowed BLM to study and analyze the recommendations of two groups directed by Congress to study the fair market value and environmental aspects of the coal leasing program.



Dragline on one of the 134 producing coal leases on Public Lands.

About 18.5 percent of U.S. coal production comes from Federal leases.



Department officials continued discussions with several conservation groups concerning the procedure for processing coal preference right lease applications. The discussions centered around issues related to compliance with relevant environmental statutes and with the Department's procedures for determining whether an applicant has discovered coal in commercial quantities. Agreement was expected to be reached in early 1987, and would be used by BLM and the

Department to develop rulemaking for improved environmental analysis and public participation for processing the 111 remaining coal preference right applications.

During the year, six Federal coal lease tracts were processed. They covered 5,620 acres and contained approximately 33.9 million tons of recoverable reserves. The sales brought \$2.45 million in bonus bids. The new leases containing 15,064 acres and approximately 124.07 million tons of recoverable reserves were issued.

At the end of Fiscal Year 1986, there were 596 outstanding Federal coal leases covering 882,900 acres of Federal lands. In addition to these leases, 6 prospecting permits, 4 mining licenses, 37 exploration permits, 1 use permit, and 111 preference right lease applications were administered by BLM.

Coal Operations

BLM is responsible for ensuring that coal exploration and mining operations are conducted in accordance with the Mineral Leasing Act of 1920, as amended, the Mineral Leasing Act for Acquired Lands of 1927, related statutes, and implementing regulations in Title 43 of the Code of Federal Regulations at 480. Coal program requirements of the mineral leasing laws, including resource recovery, diligence, and readjustments were significantly revised by the Federal Coal Leasing Amendments Act of 1976. Regulations published in 1979, 1982, and 1986 further define BLM's responsibilities for coal operations. In Fiscal Year 1986, BLM administered 596 existing Federal coal leases containing an estimated 16.5 billion tons of recoverable reserves. There were 134 outstanding Federal coal leases. Coal production from Federal lands in Fiscal Year 1986 was approximately 887 million tons, about 18.5 percent of total United States production (approximately 887 million tons). Federal royalties paid through production verified by BLM and collected by the Department of the Interior totaled \$101.1 million.

Fiscal Year 1986 marked the first full year in which BLM had a formal national policy and implementing guidelines for solid mineral inspection and enforcement and production verification. The policy and guidelines ensure nationally uniform procedures and consistent nationwide application and provide guidance to lessees and operators on their production and royalty related responsibilities. Accordingly, each BLM field office with coal responsibilities developed office plans which formed the foundation for implementation of the inspection and enforcement and production verification guidelines.

Another major accomplishment was the implementation of the Solid Leasable Minerals System, a com-

puterized data base that was developed to track all aspects of lease operations. All producing and non-producing leases, licenses and permits are continually monitored through this system to ensure compliance with regulations and lease-term requirements and to ensure timely readjustments of the lease terms. Procedures that were implemented in 1984 were continued in Fiscal Year 1986 to ensure that Federal coal leases are readjusted in a timely manner to Federal Coal Leasing Amendment Act terms.

Also in 1986, BLM developed and issued guidelines to implement Section 7 of the Mineral Leasing Act of 1920, which required each Federal coal lease to be in production in commercial quantities before the end of the 10th anniversary of the lease (diligent development) and annually thereafter (continued operation) or pay advance royalty in lieu of continued operation.

BLM began implementing guidelines for Logical Mining Units in Fiscal Year 1986 and also, in late 1986, issued regulations for implementing Section 3 of the Federal Coal Leasing Amendments Act of 1976. Section 3 guidelines relate to the implementation of Section 2(a)(2)(A) of the Mineral Leasing Act, which prohibits the issuance of any onshore Federal mineral lease to any entity that holds, and has held for 10 years, a Federal coal lease that is not producing in commercial quantities. The formation of a Logical Mining Unit could establish for a lessee or operator a mechanism to satisfy Section 7 of the Mineral Leasing Act and Section 3 of the Federal Coal Leasing Amendments Act by allowing production on any contiguous lease or fee land within the Logical Mining Unit to be counted as production from other Federal leases within the same unit.

In addition to these regulatory procedures, BLM is responsible for Federal coal lease performance bonds, which provide a means of security to the Federal Government if a lessee or operator fails to make royalty or rental payments on a timely basis. Uniform guidance was issued on bonding procedures.

Oil Shale Management

An anniversary portrait . . . in 1971 the Prototype Oil Shale Leasing Program was initiated, and in 1974 BLM issued four oil shale leases, two in Colorado and two in Utah. By 1986, development activity on the existing prototype lease tracts was at a standstill.

The Mineral Lands Leasing Act of 1920 gave the Secretary of the Interior the authority to lease oil shale on Federal lands. BLM has the Federal management responsibility for 80 percent of the oil shale resource that is concentrated in the Green River formation in Colorado, Utah, and Wyoming. The reserves in this 25,000 square mile formation are esti-

mated to contain nearly 2 trillion barrels of shale oil. Approximately 731 billion barrels of oil could be recovered with current technology. However, given present technology, the cost of extracting the oil makes it noncompetitive against conventional energy sources.

During Fiscal Year 1986, the U.S. Synthetic Fuels Corporation was abolished, and proposed regulations for a permanent oil shale leasing program were canceled. Tract C-a in Colorado is under formal suspension. BLM is currently preparing an environmental impact statement on the lessee's application for another lease tract which would primarily be used for solid waste disposal. The lessee of prototype tract C-b in Colorado has expressed a desire for a suspension and modification of some lease terms. BLM is currently reviewing this application. The lessee of tract C-b paid over \$1.3 million in advance royalties in 1986. Unitized (Utah) oil shale tracts U-a and U-b were relinquished in September 1986. The site and existing facilities are now being managed by BLM.

The collection of oil shale documents and reference material at BLM's Grand Junction, Colorado, office has been transferred to the library at BLM's Denver Service Center, from which it may be borrowed through the traditional loan process. A bibliography of the entire collection will be prepared and made available to interested parties.

Tar Sand Management

An anniversary portrait . . . since passage of the Combined Hydrocarbon Leasing Act in 1981, 12 oil and gas leases covering over 25,000 acres have been converted to combined hydrocarbon leases, and there are 26 oil and gas conversion applications pending approval action within Special Tar Sand Areas.

About 70 percent of the Nation's tar sand deposits are estimated to be in Utah, primarily on Federal lands. Under the provisions of the Combined Hydrocarbon Leasing Act of 1981, holders of preexisting oil and gas leases and valid mining claims in Special Tar Sands Areas, located in Utah, had a limited opportunity (ending November 16, 1983) to obtain the tar sand rights thereunder noncompetitively by applying to convert their existing oil and gas leases or valid mining claims to combined hydrocarbon leases. The Act also provides for a competitive leasing program. The Act requires that all conversion applications demonstrate reasonable protection of the environment.

The final rulemaking governing Paying Quantities and Diligent Development of Combined Hydrocarbon Leases was issued effective May 22, 1986. Due to low

demand and limited commercial technology, tar sand development on Public Lands was minimal during Fiscal Year 1986.



A continuous underground miner extracts trona, a source of soda compounds.

Nonenergy Minerals Management

An anniversary portrait . . . exploration for locatable metallic minerals on public domain lands dates back to the Mining Act of 1866, the Placer Mining Act of 1870, and the General Mining Law of 1872. Their exploration and leasing on Public Lands was authorized by the Reorganization Plan No. 3 of 1946. The Mineral Leasing Act of 1920, as amended, and the Acquired Lands Leasing Act of 1947, as amended, authorized the leasing of Public Lands for private extraction of the leasable minerals as well as oil, gas, and coal. The Act of August 13, 1954, amended both the general mining laws and the leasing laws to permit multiple development of both hardrock and leasable minerals on the same tract of land.

Nonenergy leasable minerals include phosphate, potassium and sodium minerals, sulphur, asphalt, and gilsonite. The nonenergy hardrock or locatable minerals are mostly metallic minerals, such as gold, silver, lead, zinc, copper, and uranium.

The extensive revision of Title 43 of the Code of Federal Regulations, Part 3500 became effective as of May 22, 1986. The regulations govern nonenergy minerals and were issued in a mineral-specific form.

facilitate their use by the interested public, the mining industry, and Federal land managers. These regulations will permit the more rapid approval and issuance of prospecting permits and leases. These regulations also cover provisions for mining claim, placer right, and other types of mineral leases in the White Mountains National Recreation Area in Alaska.

In Fiscal Year 1986, BLM issued 28 sulphur prospecting permits, 9 gold prospecting permits, and 1 uranium prospecting permit. Total nonenergy mineral leases administered by BLM as of September 30, 1986 were as follows: 149 phosphate, 103 sodium, 1 potassium, 1 asphalt, 12 gilsonite, 2 gold, and 2 uranium. No new leases were issued during 1986.

Mineral Materials Management

In an anniversary portrait . . . BLM's mineral materials program, sometimes referred to as the "salable minerals program," began with the passage of the Mineral Materials Act of July 31, 1947. In 1955 Congress amended this Act by specifying that common varieties of previously locatable minerals, such as sand and gravel and stone, were to be disposed of under the provisions of the 1947 Act. Since that time BLM has disposed of mineral materials either by sale to the general public or by free use permit to qualified government or nonprofit entities as provided in the Act.

In Fiscal Year 1986, BLM issued approximately 100 sales and free use permits, representing materials valued at approximately \$20 million. For many Western communities, the Public Lands continue to be an important source for mineral materials, which are used for energy and mineral development, construction and maintenance of transportation systems, and the expansion of communities and industries.

Mining Law Administration

In an anniversary portrait . . . the Mining Law of 1872, as amended many times in its 114-year history, serves as the statutory basis for the disposition of "locatable minerals" from the public domain. In addition, minerals that are now disposed of via the Mineral Leasing Act of 1920 (such as oil shale) may be held, worked, and patented under the mining laws if claim location and discovery of valuable deposits preceded 1920.

Generally owned locatable minerals include valuable deposits of precious metals, base metals, industrial minerals (such as cement-grade limestone and ben-

tonite) and uncommon varieties of building stone and other mineral materials.

In Fiscal Year 1986, BLM accepted 112,858 mining claims and sites for initial recordation under Section 314 of FLPMA. Annual filings of assessment work affidavits (or notices of intent to hold) served to hold 724,907 mining claims of record. Failure to annually file such documents is conclusive evidence of abandonment of the mining claim.

Under the surface management regulations administered by BLM, operators proposing to disturb the surface of Public Land filed approximately 426 plans of operation (generally for disturbances of greater than 5 acres) and 1,966 notices (for lesser impacts) in Fiscal Year 1986. Reviews of the proposed activities serve to ensure that no unnecessary or undue degradation of the Public Land is likely to occur.

BLM continued in Fiscal Year 1986 to emphasize its responsibility to promptly adjudicate mineral patent applications, reject or contest invalid mining claims, and issue patent to those claimants demonstrating a discovery of a valuable mineral deposit. As a result, 7,626 acres of mineral land passed into private ownership as patented lode or placer mining claims. Under the millsite provisions of the mining laws, 185 acres of nonmineral land were patented for uses reasonably incident to mining and milling purposes.



Gold mining operation in Montana.

C. Land Programs

Lands

An anniversary portrait . . . the Federal Government's lands program can be traced back to the first patent issued for a tract of public domain (March 4, 1788) by the Office of Commissioners, Board of Treasury, New York City. The General Land Office was established in 1812 to manage the public domain. On July 16, 1946, BLM became the successor to both the General Land Office and the Grazing Service (founded in 1934).

Over the years, Congress has enacted numerous public land laws, including the Homestead Act of May 20, 1862, the Desert Land Act of 1877, various sale and disposal laws (1880 through 1926), the Recreation and Public Purposes Act of 1926, the Taylor Grazing Act of 1934, and the Small Tract Act of 1938. With the passage of FLPMA in 1976, 331 old laws or parts of laws were repealed, including all homestead laws, the Small Tract Act, and several sale and use authorities. In turn, FLPMA created new and more comprehensive authorities allowing the Secretary of the Interior to convey, trade, and authorize use of the Public Lands.



Photographer: Diane Drobka

During Fiscal Year 1986, BLM's lands program focused on:

- responding to State and local government requests for acquisition or use of Public Land for community expansion, recreation, and public-purpose activities;
- modifying land exchange processing to eliminate unnecessary requirements and streamline procedures;

- accelerating programs of State and private land exchanges to acquire important public values and access and to foster improved management of both Federal and non-Federal lands;
- transferring Federal land to States to satisfy indemnity (in-lieu) land entitlements that remained outstanding;
- reducing the backlog of land acquisition and use applications; and
- resolving cases of unauthorized use of the Public Lands.

The Recreation and Public Purposes Act authorizes the Federal Government to convey lands at no cost to State and local governments for public recreation purposes and to lease or sell lands for other public purposes at less than fair market value. In Fiscal Year 1986, BLM processed 138 applications under this Act, involving 13,598 acres of Public Land. Applications continue to be filed at a rate of approximately 80 per year.

Land exchanges (trading Public Land for State or private land) provide opportunities to acquire lands with high public values, simplify ownership patterns, improve respective management programs, and meet both public and private needs. Consistent with the Administration's vision of Federalism—the return of authority and discretion to the local level of government—BLM's land exchange program helps State and local communities better manage their own lands for the betterment of their citizens. The land exchanges increase local control of resources and lands needed in order to be responsive to the needs of the people to support their own growth and well-being.

The amount of acreage conveyed through exchanges has climbed steadily from almost 70,600 acres in 1981 to 341,204 acres in 1985. In Fiscal Year 1986, 55 exchanges conveyed 301,770 acres of Public Land to State and private interests in return for 348,398 acres of their land.

As Western States were admitted to the Union, they were granted Federal land for the support of common schools. In many cases, however, land due to the States had been preempted by settlement, mining claims, and Federal programs. Accordingly, Congress authorized the States indemnity (or in-lieu) selections for the preempted lands. Conveyance of such in-lieu land to the Western States has been accelerated rapidly in recent years: between 1977 and 1980, only 3,859 acres were transferred; from 1981 through 1985, a total of 359,678 acres were conveyed. With much of the work accomplished, 1986 transfers totaled only 6,609 acres. About 170,000 acres of the original, multi-million acre entitlement remain. BLM

process the balance as States present their applications.

Processing of Desert Land Act applications constituted a major workload in Idaho and Nevada during Fiscal Year 1986. BLM processed 509 applications during the year, reducing to 800 a backlog that once involved more than 6,000 cases.

BLM continued to make selected Public Lands available for sale to allow for community expansion and other purposes. Most of the land sold consisted of small, isolated parcels. Tracts are carefully selected through BLM's land use planning process to ensure that sale is appropriate. During Fiscal Year 1986, 51 acres of Public Land were sold for a total of more than \$11.5 million. Of this total, 705 acres in the Las Vegas, Nevada, area were sold under the provisions of the Santini-Burton Act for \$9.8 million.

Withdrawals and Withdrawal Review

Prior to the passage of FLPMA, a very large and varied body of laws going back hundreds of years authorized the withdrawal or classification of Public Lands. In 1976, FLPMA, under Section 204(l), required a comprehensive 15-year review of certain withdrawals of Federal lands in the 11 Western States, excluding Alaska. Between late 1980 and early 1985, BLM reviewed over 30 million acres of Public Land and submitted 112 withdrawal cases to the Office of Management and Budget, recommending termination of these outdated withdrawals that covered nearly 14 million acres.

During Fiscal Year 1986, the Secretary approved 11 Public Land Orders: eight withdrawals encompassing 16 acres for administrative, historic, or recreation purposes; two revocations, one under Section 204(a) of FLPMA and one under Section 204(d) of the Alaska Native Claims Settlement Act affecting 46,183 acres in Alaska to permit selection by the State or conveyance to the Natives; and one modification of an existing withdrawal to transfer administrative jurisdiction of a prison.

On July 15, 1985, the National Wildlife Federation filed suit in the U.S. District Court challenging the withdrawal and classification processes and actions taken by BLM since January 1, 1981, under Sections 204(d), 204(a), and 204(l) of FLPMA. A preliminary injunction was issued February 10, 1986, specifically prohibiting the Secretary of the Interior from modifying, terminating, or revoking, in full or in part, under FLPMA, any withdrawal or classification that was in effect on January 1, 1981; or taking any action inconsistent with the specific restrictions of any withdrawal or classification in effect on January 1, 1981.

The injunction halted BLM's withdrawal review program to identify outdated withdrawals and return such lands to multiple use management. Many such withdrawals and classifications were placed on Public Lands prior to passage of FLPMA in 1976. Some of the withdrawals date back to the 1880s and 1890s, and many of the lands that were under review were withdrawn for purposes that did not occur or that are no longer occurring.

The injunction also inhibited mineral leasing activities on Public Lands and slowed BLM's program to streamline its land management through exchange and sale of lands uneconomic to manage or lands needed by local or State governments for better management of their own programs. The suspension of many lands activities has significantly impacted many third parties, including individual citizens, local communities, and State governments throughout the West. Nationwide, many pending land exchanges and land sales were suspended, including more than 250 Desert Land Entries, over 500 sales and exchanges, nearly 1,000 mineral or Recreation and Public Purpose Act leasing actions, and recordation of 7,300 mining claims.

Alaska Lands

An anniversary portrait . . . since 1958, BLM has transferred title to approximately 80 million acres to the State of Alaska under the Alaska Statehood Act and title to over 34.5 million acres to Alaska Native corporations under the Alaska Native Claims Settlement Act.

On July 7, 1958, Public Law 85-508 provided for the admission of the State of Alaska into the Union. This Act provided the State with the opportunity to acquire over 104 million acres of public land. On December 18, 1971, the Alaska Native Claims Settlement Act established Native corporations that could select approximately 44 million acres from the public domain. FLPMA, the Alaska National Interest Lands Conservation Act (1980), and the Alaska Railroad Transfer Act (1982) also affect management of Alaska lands.

In 1958 BLM administered nearly 300 million acres in Alaska, an area larger than the States of California and Texas combined. In the 28 years since, land has been transferred to the State, Natives, and other Federal agencies, so that today approximately 94.5 million acres remain in the public domain. When the title transfer program is completed, BLM will manage approximately 64 million acres throughout Alaska, and while retaining responsibility for some functions (such as firefighting) on approximately 150 million acres.

During Fiscal Year 1986, BLM patented more than 2 million acres to the State and more than 1.5 million acres to Alaska Native corporations. All approved lands required boundary staking, survey, and preparation and approval of the survey plat before the patents were issued. In addition, BLM processed over 800 Native allotment parcels up to the request for survey.

FLPMA repealed Federal settlement laws except for Alaska, where settlement was allowed to continue until October 21, 1986. There are presently 551 active applications on file for land in the Slana area; seven patents have been issued. At Minchumina, there are 88 active applications on file; six patents have been issued.

Management direction was established for BLM's Steese National Conservation Area and White Mountains National Recreation Area through completion of resource management plans for the two areas. Planning for the Central Yukon area was also completed, and work is progressing on the Utility Corridor Resource Management Plan.



BLM currently manages some 94.5 million acres in Alaska.
Photographer: Bob Anderson



Power transmission lines are only one of the many kinds of rights-of-way issued by BLM each year.

Rights-of-Way

An anniversary portrait . . . a Federal right-of-way program has been in existence for more than 175 years. Rights-of-way with associated grants of land were authorized beginning in 1802 with the Ohio enabling legislation, and similar legislation for other states was passed in the years following. Many subsequent laws providing for rights-of-way on Public Lands were repealed and superseded by FLPMA.

Rights-of-way are used to authorize improvements such as roads, railroads, power transmission and telephone lines, other communication facilities, canals, oil, gas, and other types of pipelines; and most other types of facilities that provide for the transportation of products. The majority of rights-of-way are authorized under FLPMA and the Mineral Leasing Act of 1920.

During Fiscal Year 1986, BLM authorized three major rights-of-way and 2,154 smaller rights-of-way for various purposes under the authority of FLPMA. BLM also authorized two rights-of-way for major pipelines and 901 rights-of-way for smaller pipelines and related facilities under the authority of the Mineral Leasing Act of 1920.

Draft regulations were issued in Fiscal Year 1986 that provide for both cost recovery and the collection of right-of-way rentals, as required by Section 504 of FLPMA. Instructions were also issued to field offices, including handbooks providing terms and conditions for use in right-of-way grants; these will provide for more uniformity in the processing and issuance of right-of-way grants.

Twelve cases involving cost recovery litigation were resolved in Fiscal Year 1986. These were cases which had been appealed to the 10th Circuit Court of Appeals concerning costs charged applicants for processing right-of-way applications filed under FLPMA.

Acquisition

An anniversary portrait . . . Oregon BLM developed an acquisition program in the early 1950s to accommodate their competitive timber sale program and developed the first Acquisition Handbook in 1959. By the mid-1960s, a BLM acquisition program had been established. Within the past 18 years, approximately 105 deeds and 170 scenic easements have been acquired on the Rogue, Missouri and Rio Grande Wild and Scenic Rivers and about 2,000 access road easements have been acquired, with a condemnation rate of about 2 percent.



Progress provided specifically for the acquisition of lands for the King Range National Conservation Area in California. Photographer: Tony Staed

FLPMA provides the primary legislative authority for BLM's acquisition program. Under FLPMA, the Secretary of the Interior is authorized to acquire lands through purchase, exchange, donation, or when necessary through eminent domain. In addition, Congress has occasionally passed special legislation providing for acquisition, such as the Wild and Scenic Rivers Act and the National Trails System Act, both passed in 1968, and the King Range National Conservation Area Act of 1970.

During Fiscal Year 1986, BLM acquired 179 easements for legal access, administrative use, and rights for the public. The Trust for Public Lands acquired a parcel of land located in the Steens Mountains of Ore-

gon, and BLM acquired it from them with Land and Water Conservation funding in the amount of \$644,000. The Steens Mountains parcel is considered highly valuable for recreational purposes and some portions are designated as areas of critical environmental concern.

The Acquisition Handbook was completed and distributed to the field offices in Fiscal Year 1986. This handbook consists of three parts: Acquisition Processing, Condemnation, and Disposal of Unneeded Easements.

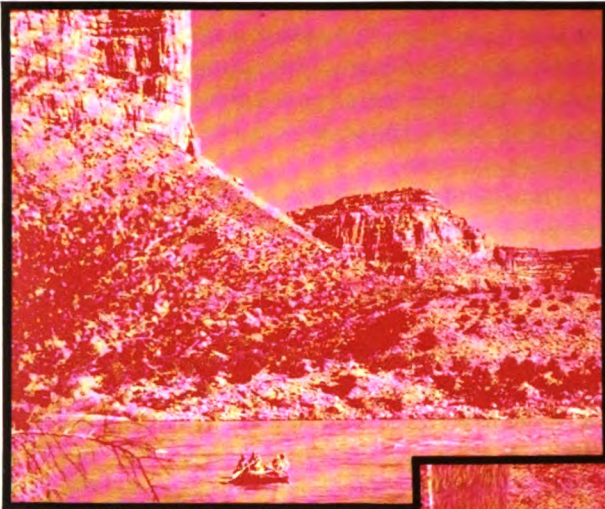
An Access Task Force was formed in Fiscal Year 1986 to formulate methods to resolve access problems and identify opportunities for acquiring legal access with other than appropriated funds. The group met twice in Denver and arrived at recommendations for the State Directors' consideration.

Recreation Management

An anniversary portrait . . . hunting and fishing have occurred on public domain lands for hundreds of years. Other kinds of recreational use began to accelerate in the late 1940s and 1950s as war surplus "jeeps" provided a safe means to get into the back country. As a result, BLM initiated management programs to control the burgeoning recreational activities like sightseeing, picnicking, camping, hiking, hunting, fishing, and driving for pleasure.

The right to use Public Lands for recreation was recognized in the Taylor Grazing Act of 1935. However, it was not until the Classification and Multiple Use Act of 1964 that recreation was recognized as a major use of Public Lands. In 1976 FLPMA authorized BLM to manage recreation use on the Public Lands as an equal partner with other uses. Providing recreation as part of multiple use management pays the greatest return to the public because the benefits produced by other resources are not foregone. As contrasted with single use recreation areas, BLM's multiple use management of recreation allows benefits from resources such as minerals, timber, and forage to be achieved while recreation also continues.

In Fiscal Year 1986, Public Lands accommodated more than 54.2 million recreation visits, an increase of 5 percent over Fiscal Year 1985, and over 284.1 million visitor hours, a 16 percent increase. Management of this use was accomplished by on-the-ground presence of rangers and other visitor service personnel, by controlling use through off-road vehicle designations and a permitting system, and through heavy reliance on volunteers and cooperative management. During Fiscal Year 1986, 187,200 volunteer hours were contributed with a savings to the Federal Government of over \$1.1 million.



River rafting in Desolation Canyon, Utah.



The California Desert has room for different kinds of recreation.



In addition, the Long-Term Visitor Areas in Arizona were operated almost entirely with volunteer help. More than \$40,000 in fees were collected at these areas, and over 40,000 hours of volunteer time were contributed. These areas were established in Arizona and California to meet the need for long-term winter camping areas. For a \$25 permit, people with campers and trailers are allowed to camp in the Long Term Visitor Areas for an eight-month period. The areas are mostly undeveloped, with only minimal facilities provided.

Overall during Fiscal Year 1986, 54,738 camping and day-use permits were issued, a 30 percent increase over Fiscal Year 1985. An additional 8,074 special recreation permits were issued, a 13 percent increase over the previous year. More than \$1 million in fees were collected. This represents a 100 percent increase in camping and day-use fees collected, and a

44 percent increase in fees collected in the special recreation permit program.

Through Fiscal Year 1986, approximately 103.9 million acres of Public Land were open to off-road vehicle use (subject to special operating requirements), approximately 26.3 million acres were designated for limited off-road vehicle use, and approximately 2.1 million acres were closed to off-road vehicle use.

Other cost-saving and time-saving measures implemented in Fiscal Year 1986 included a "one-stop shopping service" for outfitter and guide permits in Colorado, New Mexico, and Arizona. Outfitters and guides seeking permits to use BLM and Forest Service lands can now get these permits through either agency. Field offices in Wyoming and New Mexico signed and implemented 12 cooperative management agreements with user groups to manage cave resources. In Montana, BLM signed cooperative

management agreements with private and State agents to open up hunting land. In northern Utah, natural service organizations worked with local BLM officials to protect and interpret a section of the original transcontinental railroad grade. In California, BLM and the State worked together to improve off-road vehicle opportunities and reduce impacts from off-road vehicle use. BLM currently has some 35 separate projects under way that are funded through State programs. Another 14 projects are being planned.

BLM currently manages:

- 1,378 miles of National Wild, Scenic and Recreational Rivers (15 rivers)
- 4,000 miles of floatable rivers
- 1,556 miles of National Recreation, Scenic, and Historic Trails (21 trails)
- 3,000 miles of trails
- 65,000 miles of roads suitable for recreational travel by normal vehicles and thousands of miles of primitive roads used for back-country exploring, hunting, fishing, etc.
- 470 developed and semideveloped recreation sites, including 5,900 camp units and 2,364 picnic units
- 348 boating access points
- 7 visitor centers
- 37 concession operations
- 85,000 miles of fishing streams
- 4,170,000 acres of lakes and reservoirs
- 237 special recreation management areas

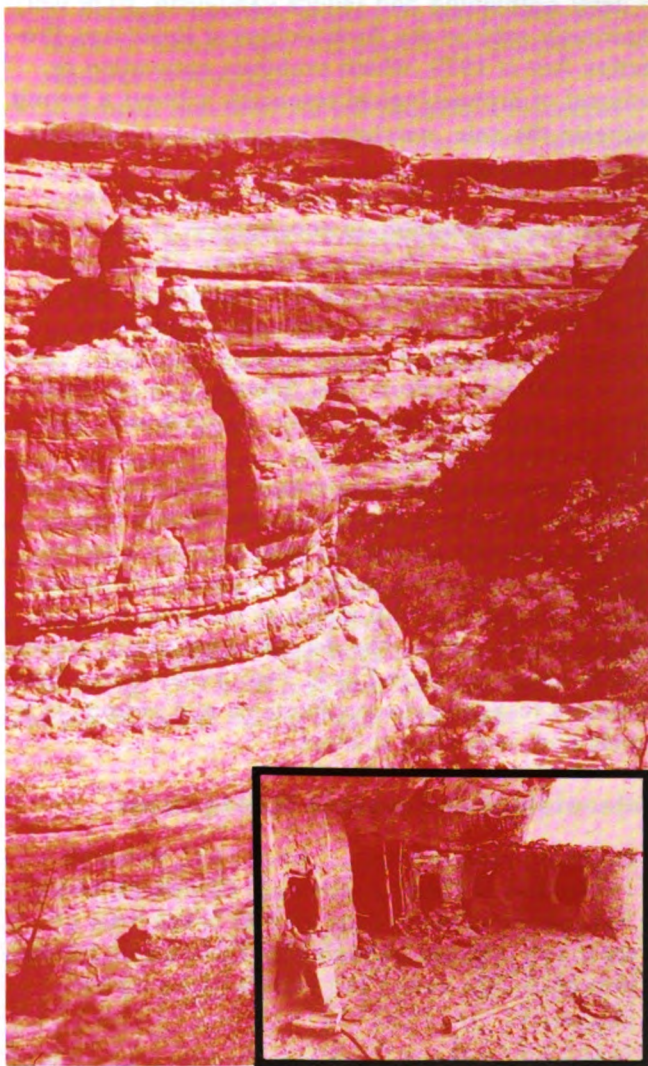
Comprehensive management plans have been completed for the Iditarod National Historic Trail in Alaska and segments of the Oregon and Mormon Pioneer National Historic Trails in Idaho and Wyoming. A management plan was begun for the San Pedro Riparian Area in Arizona, which was acquired through an exchange in 1985 for its numerous multiple values including major recreational and cultural values.

Cultural Resource Management

anniversary portrait... the cultural resource management program is a relative newcomer to BLM, tracing its origins to the National Historic Preservation Act (1966). The program's development accelerated after FLPMA established a basis for managing Public Land cultural resources in 1976. To date, more than 125,000 archaeological and historic properties have been recorded on Public Lands, with about 10,000 new entries being added each year.

Cultural resources are protected by numerous Federal statutes, including FLPMA, the National

Historic Preservation Act of 1966, and the Archaeological Resources Protection Act of 1979. These laws establish the primary objectives of BLM's cultural resource program, which are the identification of the physical evidence of approximately 20,000 years of human occupation in the western hemisphere, the evaluation of the relative importance of these physical manifestations, and the determination of what management actions are appropriate for protecting the significant aspects of the cultural environment.



BLM manages thousands of cultural sites, such as this area in the Moab, Utah District, which was occupied two thousand years ago by Anasazi Indians.

About 7 million acres of Public Land have been intensively inventoried for cultural resources. Presently, 1,258 properties are considered to have nationally significant values, and 370 have been included in the National Register of Historic Places. In addition to numerous individual site stabilization and protection

projects carried out in the past year, over 1.5 million acres of land, having some 78,000 cultural properties, were under protective patrol and surveillance.

In Fiscal Year 1986, BLM placed greater emphasis on working with schools, civic groups, and archaeological societies to increase public awareness and understanding about cultural resources, the need to leave them untouched on the Public Lands, and the dangers of vandalism. BLM is actively seeking public cooperation in reporting thefts and vandalism and in refusing to buy stolen artifacts. Where education fails to deter pothunting and reduce vandalism, BLM will vigorously enforce the Archaeological Resources Protection Act of 1979, which prohibits excavation or removal of archaeological resources without a permit, and also the sale, purchase, or transport of illegally removed remains.

Also in 1986, BLM continued to work with the Bureau of Reclamation on construction of the Anasazi Heritage Center at Dolores, Colorado. The center is expected to be completed in the summer of 1987. It would be managed as an interpretive center and repository for cultural artifacts of the Northern Anasazi, a prehistoric culture that flourished in the Four-Corners area of Colorado, Utah, Arizona, and New Mexico some 2,000 years ago.

BLM annually issues more than 400 permits to individuals, consulting firms, and educational institutions to complete various cultural resource surveys and impact mitigation work on Public Lands, generally for compliance with statutory planning and protection requirements. The decentralized permit system, only in operation since Fiscal Year 1985, allows State Directors to administer applications and permits in a timely and responsive manner.

Paleontological Resource Management

An anniversary portrait. . . since 1931, scientific excavation of Public Lands near Cleveland, Utah, has unearthed more than 10,000 bones from at least 100 different animals that lived about 150 million years ago during the middle of the age of dinosaurs.

Paleontological resources are administered under a variety of legislative mandates such as FLPMA, the Surface Mining Control and Reclamation Act of 1977, and the National Environmental Policy Act of 1969. These laws require the identification, management, and protection of scientific values and the preservation of important aspects of our Nation's natural heritage. As a result of a Secretarial Order issued in September 1984, BLM was delegated authority to issue and ad-

minister paleontological collecting permits on Public Lands.

BLM's paleontological resources management program provides for both scientific research and public educational use of fossils on Public Lands. In Fiscal Year 1986, 56 permits for paleontological scientific collection were issued. Also a new paleontological public interpretive trail was established in southwestern Colorado.

Wilderness Resource Review and Management

An anniversary portrait. . . since 1976 BLM has designated 23 wilderness areas, located in eight states and totalling approximately 370,000 acres.

FLPMA provides a legislative mandate for BLM to study the Public Lands for wilderness characteristics and recommend designation of such lands as wilderness areas to the President and Congress. Designated wilderness areas are managed under the authority of the Wilderness Act of 1964.

BLM completed its inventory in the western states November 1980. At the present time, BLM has 860 wilderness study areas containing approximately 25 million acres. Approximately 2 million acres in Alaska are included in a congressionally mandated wilderness study under the provisions of the Alaska National Interest Lands Conservation Act, with the study results and recommendations to be sent to Congress by December 1988.

By the end of Fiscal Year 1986, BLM had completed 85 percent of the field study work in wilderness study areas, with remaining field activities scheduled for Fiscal Year 1987. BLM completed seven final environmental impact statements covering wilderness study areas during Fiscal Year 1986. At the present time, based on field study work, BLM has preliminarily identified that approximately 10 million acres are suitable for designation as wilderness as part of the National Wilderness Preservation System. Mineral survey work in these areas is under way, and BLM is working toward completing the remaining final environmental impact statements.

No new BLM wilderness areas were designated by Congress in Fiscal Year 1986. Congress did not act on the package of 30 areas submitted by the President in April 1985, and no new BLM wilderness packages were submitted in 1986.

During Fiscal Year 1986, BLM continued to emphasize strict enforcement and compliance with the mandates of FLPMA for all activities occurring in wilderness study areas to protect their suitability for wilderness designation. A number of special public

Each initiative was implemented to better inform the public and users of the Public Lands what they can and may not do in these areas. Greater use of volunteers and conservation groups was initiated to use the resources of BLM to assist in monitoring activities in wilderness study areas. In Fiscal Year 1986, BLM also stepped up its training programs to increase the capabilities of BLM personnel to better manage activities in wilderness study areas. During the year BLM also continued to develop more effective management procedures for its 23 designated wilderness areas, including procedures concerning aircraft flights, guidelines on managing fish and wildlife activities, and regulations concerning access on mining claims in areas where the claims were located before the area was designated wilderness.



Apple Mountains Wilderness Study Area in California, near Arizona border.

Renewable Resource Programs

Rangeland Management

anniversary portrait . . . the Taylor Grazing Act of 1934 ended previously free and unregulated grazing use of the Public Lands and introduced Federal protection and management of the lands and their resources. The Act was implemented through the combined efforts of the livestock operators and the newly created Division of Grazing, which was reorganized as the Grazing Service in 1940. Since 1946, when the Grazing Service was combined with the General Land Office to create the BLM, rangeland management on Public Lands has improved considerably as the result of reductions in livestock numbers, improved grazing capacity of the land, improvements in livestock grazing management and range improve-

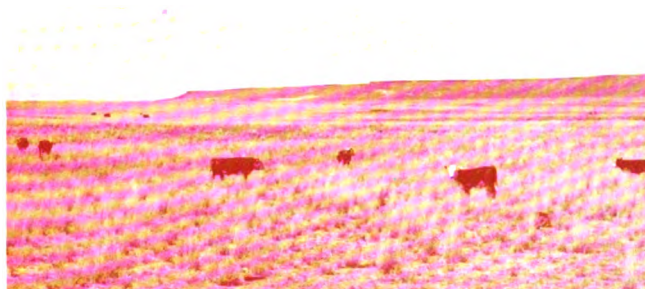
ment practices, and cooperation of the livestock industry that is dependent on public rangelands.

Range Management

Range conservationists administer the grazing program on the Public Lands, in conjunction with wildlife biologists, soil scientists, hydrologists, environmental specialists, and other staff to ensure that grazing use is in harmony with other resources and uses on the Public Lands. The general goals of the range management program are:

- to manage livestock grazing on the public rangelands to balance use and sustain or improve resource productivity;
- to protect and improve the rangeland resources through sound land use planning, which includes making cost-effective investment and management decisions;
- to make decisions in consultation, cooperation, and coordination with lessees and permittees, affected landowners, interest groups, individuals, and other agencies; and
- to make sure that rangeland improvements provide multiple-use benefits.

A total of 130 site-specific grazing environmental impact statements have been completed, including 11 in Fiscal Year 1986; they address livestock grazing on 148 million acres of Public Lands in 10 Western States. After an environmental impact statement is completed, allotment management plans are prepared to identify specific on-the-ground activities to meet the resource management objectives identified during land use planning. The BLM prepared 193 allotment management plans during Fiscal Year 1986.



BLM completed 193 allotment management plans for public rangelands in 1986.

In Fiscal Year 1986, about 4 million acres were inventoried using the ecological site inventory methods; the resultant data will be a basis for land use planning, for identifying and supporting needed management actions, and for detecting changes in resource condition through monitoring studies. In addition, dur-

ing the fiscal year, 4,400 allotments were monitored, through the collection and analysis of data on climate, actual grazing use, utilization on key forage plants, special events (insects, fire, etc.), and trend in range condition. Range improvements during Fiscal Year 1986 included development of 623 water facilities, construction of 393 miles of fencing, development of 84 management facilities, treatment of 53,008 acres of vegetation, and maintenance of 113 improvement projects.

The Public Rangelands Improvement Act of 1978 established a grazing fee formula for a seven-year trial period. The Act also required the Secretaries of Agriculture and Interior to submit to Congress an evaluation of grazing fee options and a recommendation on a formula to be used in 1986 and subsequent years. During Fiscal Year 1986, the Secretaries of the Interior and Agriculture submitted to Congress the Grazing Fee Review and Evaluation Report, along with their recommendation. While Congress deliberates the grazing fee issue, the Secretaries, under Executive Order, will continue determining the annual grazing fee by using the formula established by the Public Rangelands Improvement Act, with a minimum fee of \$1.35 per animal unit month.

BLM and the Forest Service submitted a report to Congress on the results of the Experimental Stewardship Program and recommendations on the role of the program in rangeland management, as authorized by the Public Rangelands Improvement Act. The purpose of the Experimental Stewardship Program was to foster innovation, cooperation, and better range stewardship, leading to improved conditions of the public rangelands. The program has improved communication and cooperation between private range users and BLM and Forest Service personnel. It has also increased pride in, and commitment to, the stewardship of Public Lands.

Soil, Water, and Air Management

Soil, water, and air resource considerations are often key to both the short- and long-term objectives of other BLM programs. Identification or inventory of existing soil, water, and air resources is the initial step in providing information needed for multiple-use planning and management.

The Taylor Grazing Act of 1934 recognized the need to control soil erosion and flooding, thus setting the stage for the present soil, water, and air management programs in BLM. During the 1950s and 1960s, many water-spreading systems, flood control structures, and seedings were completed under the soil and moisture program. Watershed protection was one of ten overall

objectives for Public Land management listed in the Classification and Multiple Use Act of 1964. The Public Rangelands Improvement Act (1978) establishes a national policy to identify soil and water conditions and manage for their maintenance and improvement.

Soil surveys were completed on 5 million acres during Fiscal Year 1986, bringing the total number of acres inventoried to 131 million. The goal is to complete a soil survey on 157 million acres of public rangelands by 1990.



Soil, water, and air resources can be important factors in developing other resource programs.

BLM continues to approach the Fiscal Year 1988 goal for quantifying existing water uses. During Fiscal Year 1986, 4,040 sources were added to databases used for recording water right filings with the States. Filings were made by BLM to the States for those water sources needed to provide for management of the Public Lands.

The completion of 220 watershed improvements in Fiscal Year 1986 provided for reduced erosion and sediment yields, streambank and channel stabilization and salinity control. Maintenance of existing improvements continues as an ongoing effort, with 80 projects being completed in 1986. Approximately 2,350 watershed stations were monitored to assess progress toward meeting soil and water management objectives.

The air resource program supports the operation of more than 50 Remote Area Weather Stations to provide climatic information for use in a wide variety of management activities. BLM's energy and mineral development activities, smoke management, and other programs are aided by the air modeling capabilities of the air resource program.

BLM's air resource program continues to play a monitoring role in the National Acid Precipitation

assessment by operating 15 acid rain monitoring stations at remote locations in nine Western States. These stations provide data essential for the development of acid precipitation maps used to determine trends and possible impacts of acidic deposition in the Western United States.

Forest Management

An anniversary portrait . . . 2.4 million acres of commercial forest lands in western Oregon continue to constitute the most productive Douglas fir forest in the world, accounting for over 90 percent of the total board feet produced from BLM forests.

Approximately 90 million acres of BLM-administered lands are forested. Most of these lands are in Alaska; however, some 26 million acres lie in the lower 48 States, including 21 million acres of rangelands and 5 million acres of commercial forest lands, capable of producing high quality commercial timber.



Logging operation on BLM timber sale in Montana.
Photographer: Del Harding

In western Oregon, 1.280 billion board feet of timber were offered and sold during Fiscal Year 1986 and 4 billion board feet were harvested. On Public Lands outside western Oregon, BLM sold 92 million board feet of timber, and offered and sold enough firewood to heat 35,000 homes. BLM also sold 90,000 Christmas trees in Fiscal Year 1986. Receipts from timber sales in 1986 totaled \$162.2 million, of which \$5 million was returned to the General Treasury. The Federal Timber Contract Payment Modification Act requires the Secretary of the Interior to include in his report any actions that discourage bidding such as a purchaser is unable to perform contracts or any action that leads to speculation. In the process of monitoring bidding practices, BLM has discovered no evidence that indicates abuses. All timber sale con-

tracts currently being purchased are being performed, and there is no evidence of speculative bidding. Rules implemented in 1982, requiring up-front cash deposits and scheduled payments and establishing procedures to offer more short-term contracts, have been effective. However, BLM will continue to monitor bidding practices.

Trees were planted on about 20,500 acres in western Oregon, and reforestation was completed on 2,300 acres in other areas. In addition, 27,000 acres in western Oregon and 2,200 acres elsewhere were managed using intensive forest management practices.

Wildlife Habitat Management

An anniversary portrait . . . up until 1961, wildlife habitat management played a minor role in BLM operations, incidental to other programs. In September 1961, the first BLM wildlife biologist was hired and within a year half a dozen wildlife biologists were on BLM's payroll in various offices. On Public Lands in the past 25 years, elk have increased from 35,600 to 126,000 animals and antelope from 195,900 to 266,000 animals; 50 million acres of fish and wildlife habitat are being improved through implementation of nearly 400 fish and wildlife habitat management plans; and 5 million acres of threatened and endangered species habitat are being improved through implementation of 56 recovery plans.



Pronghorn antelope near Ft. Stanton, New Mexico.
Photographer: Matthew Safford

BLM manages extensive and diverse habitat for over 3,000 wildlife species, including 127 Federally listed threatened or endangered plant and animal species and more than 800 species that are candidates for Federal listing. The BLM ensures that the needs of

these and other key fish and wildlife species are considered in land use planning and decisionmaking. Further, the BLM works in partnership with State wildlife agencies to ensure conservation and rehabilitation of wildlife habitat under the Sikes Act and FLPMA. FLPMA itself identified fish and wildlife habitat development and utilization as one of the six principal or major uses of the Public Lands.

During Fiscal Year 1986, the BLM constructed 556 fish and wildlife habitat projects, such as water facilities, fences, den and nest facilities, and instream flow structures. In addition, 45,892 acres were improved through prescribed burning, seeding, disking, and chaining. Habitat improvement projects are delineated in habitat management plans. These plans, cooperatively developed with State wildlife agencies and conservation organizations, focus on areas with significant fish and wildlife resources. In Fiscal Year 1986, the BLM prepared or revised 80 habitat management plans and participated in the development of 29 recovery plans for threatened or endangered species.



Badger in Laramie River Valley. Photographer: Andrew J. Senti

In support of land use and management efforts, 164,017 acres of fish and wildlife habitat were inventoried, including nearly 119,285 acres of threatened or endangered species habitat. Monitoring of fish and wildlife habitat is conducted to determine whether fish and wildlife habitat management objectives are being met in BLM land use and management activities. A total of 1,735 plans were monitored this fiscal year.

Wild Horse and Burro Management

An anniversary portrait . . . in the 15 years since passage of the Wild Free-Roaming Horse and Burro Act, these animals have been protected with such success that the BLM must now focus on the removal and disposition of excess wild horses and burros from the Public Lands. The Adopt-A-Horse Program has found homes for nearly 70,000 excess wild horses and burros, but thousands of unadopted animals are being maintained in corrals at Government expense.

Fifteen years ago, Congress responded to public concern for America's wild horses and burros by passing legislation to "require the protection, management, and control of wild free-roaming horses and burros on public lands." These animals were seen as symbols of the historic and pioneer spirit of the West. Fearing that wild horses and burros were fast disappearing, Congress acted to preserve this resource on the Public Lands. Under Federal protection, wild horse and burro herds increased steadily. The population on lands administered by BLM approached 65,000 wild horses and burros in 1980, more than twice the estimated appropriate management level of about 30,000 animals. A removal program over the past two years has reduced the population from about 60,000 wild horses and burros at the beginning of Fiscal Year 1985 to approximately 44,800 animals at the end of Fiscal Year 1986.

BLM began Fiscal Year 1986 with nearly 10,000 excess wild horses in its corrals and contract facilities and removed 8,843 excess wild horses and 1,283 excess wild burros from the Public Lands during the year. The law provides the following order and priority for the removal and disposition of excess animals: sick, or lame animals are to be humanely destroyed; healthy animals are to be placed in private maintenance through adoption by qualified individuals; animals for which there is no adoption demand are to be destroyed in the most humane and cost-effective manner possible. However, since 1982, BLM has had a moratorium on destruction of healthy animals.

In Fiscal Year 1986, BLM placed 6,332 wild horses and 1,268 wild burros in private care through the Adopt-A-Horse (or Burro) Program. Because of the moratorium on destruction of healthy animals, BLM maintained more than 11,000 unadopted healthy animals in BLM corrals or in contract holding facilities at a cost of about \$2.50 per animal per day.

Nearly one-third of the adoptions in Fiscal Year 1986 were accomplished through fee waiver arrangements. BLM's Director can reduce or waive the ad-

h fee for animals that are unadoptable at the standard fee of \$125 per horse or \$75 per burro. Options where the fee is reduced or waived usually involve a minimum of 100 animals. Several special events promoted the adoption program this year. These included annual Wild Horse and Burro Days celebrations at the Cross Plains, Tennessee adoption center in June and at the Lewisberry, Pennsylvania adoption center in September. The Fort Worth, Texas center, which is the newest contract adoption center, held a grand opening the last weekend in September. Considerable publicity accompanied a Los Angeles celebrity polo match and temporary adoption center in April and the Wild Horse and Burro All-American Expo at Bob Evans Farm in Ohio over the Fourth of July weekend.

involved the help of a volunteer organization that provided guidance and instruction to the inmates in the care and training of wild horses. Initial results of the pilot program were promising, and the BLM Director asked that other State Offices investigate the feasibility of similar programs in their jurisdictions.

Despite these efforts, many animals are unlikely to be adopted because of age, poor conformation, or other traits seen as undesirable by most potential adopters. Unadopted healthy excess animals are maintained in three contract holding facilities, located in Bloomfield, Nebraska, Lovelock, Nevada, and Muleshoe, Texas. The cost of these contracts and associated veterinary contracts in Fiscal Year 1986 was \$6.8 million.



Public Lands in the West were home to more than 38,000 wild horses at the end of 1986.

Photographer: Bill Tarpenning



More than 1,200 wild burros were adopted by members of the public in 1986.

at Disneyland's newly opened Big Thunder Ranch, several wild burros are part of a re-creation of an 1800s working horse ranch. These burros are also available for adoption. The high visibility of the BLM burros at Disneyland provides valuable publicity for the entire adoption program.

The pilot program in Colorado explored the possibility of increasing the adoptability of hard-to-place wild horses by having prison inmates gentle the animals. This is a cooperative venture between BLM and the Colorado State Department of Corrections also in-

In an attempt to resolve the persistent problems facing the wild horse and burro program, the Secretaries of the Interior and Agriculture chartered a Wild Horse and Burro Advisory Board in Fiscal Year 1986 to advise them on policy formulation and other matters related to administration of the Wild Free-Roaming Horse and Burro Act. The nine-member board was appointed in May and met three times in Fiscal Year 1986 to gather data and hear public testimony.

Another significant accomplishment in Fiscal Year 1986 was publication of final regulations that reor-

ganized, streamlined, and clarified existing rules on management, protection, and control of wild horses and burros. The regulations on private maintenance (adoption) of excess animals were expanded to incorporate all of the requirements for adoption, including fees, qualifications, conditions for care and treatment of animals, and conditions for obtaining replacement animals.

Three research efforts were pursued on wild horses in Fiscal Year 1986 through contracts with outside investigators. The first investigated relationships between blood chemistry parameters and condition (age, sex, weight, size, and reproduction status) in captured wild horses. The other two investigations dealt with breeding structure and possible methods to suppress reproduction in herds of wild horses. Field work to evaluate both stallion-focused and mare-focused fertility control methods was begun and will extend through Fiscal Year 1991. Animals were implanted with fertility suppressant compounds (mares) or vasectomized (stallions) and fitted with radio transmitters; reproduction from these and associated animals will be monitored for the duration of the study.

In the area of planning, 9 herd management area plans were completed in Fiscal Year 1986, bringing the total to 117 plans. These plans were completed for each area where wild horses or burros will be managed in the long term. They delineate the herd size, management objectives for the herd and its habitat, methods to be used to reach the objectives, and monitoring techniques.

Five lawsuits related to wild horses and burros were pending at the beginning of the fiscal year, and three of these were resolved or dismissed. One new suit was filed during the year.

Of the six suits before the courts in Fiscal Year 1986, five concerned the impact of wild horses on public and private lands. In the sixth case, two humane organizations charged BLM with inhumane treatment of wild horses and burros in relation to capture, transportation, and maintenance of the animals.

One of the cases settled in Fiscal Year 1986 was dismissed without prejudice, and two were resolved in the Government's favor. The Ninth Circuit Court held that the Government is not required by the Wild Free-Roaming Horse and Burro Act to prevent wild horses from straying onto private lands. The Tenth Circuit Court ruled that the Government is not responsible for damage resulting from use of private lands by wild horses.

In those cases still pending at the close of the fiscal year, no action had been taken in two. In the third, involving allegations of inhumane treatment of

animals by BLM, an agreement was reached in August on all points except large-scale fee waiver adoptions. In September, plaintiffs filed a motion for summary judgment on this issue, and the Government prepared to file an opposition to that motion together with its own motion for summary judgment.



Support Services

Law Enforcement

An anniversary portrait . . . areas of enforcement which have received particular emphasis since establishment of the law enforcement program in 1976 include investigation and eradication of cannabis cultivation; prevention of theft, destruction, and sale of protected archaeological resources from Public Lands; and investigation of oil and gas theft.

With the passage of FLPMA, BLM initiated a law enforcement program that utilizes Special Agents and Law Enforcement Rangers, all well trained in law enforcement, to enforce laws pertaining to the Public Lands. Where feasible, law enforcement agreements with local officials are also used to enforce laws or ordinances of the respective State or subdivision upon Public Lands. BLM law enforcement officers perform a spectrum of patrol and investigative duties and are authorized to enforce all Federal laws and regulations relating to use, management, and development of Public Lands and their resources.

During Fiscal Year 1986, BLM Special Agents and Law Enforcement Rangers continued efforts with other Federal, State, and local agencies to eradicate cannabis on Public Lands in California, Oregon, and other Western States. Such a cooperative effort is California's Campaign Against Marijuana Planting (CAMP). BLM played a leadership role in supporting and helping to organize CAMP. In Fiscal Year 1986, CAMP destroyed more than 117,000 cannabis plants, valued at more than \$403 billion. This included some 160 plants on Public Lands, with a value of \$20.5 million.



Law enforcement officer sorts through marijuana confiscated on Public Lands in the West. Photographer: Cindy McKee



Cadastral surveyors define the boundaries of the Public Lands.

Cadastral Survey

An anniversary portrait . . . The authority for surveying the Public Lands derives from the Land Ordinance of 1785 which with some modification was reenacted in the Public Lands Act of 1796. Surveying responsibilities rested with the General Land Office and were assigned to BLM in 1946. Today, BLM's newly initiated Land Information System is a bold new concept that will dramatically increase the ability of BLM to effectively manage the multiple resources of the Public Lands.

BLM maintains all official Public Land Survey System land records. Accomplishments during Fiscal Year 1986 in the lower 48 States include completion of 462 plats, 181,755 acres of original survey, and 1.1 million acres of resurvey. In Alaska, 328 plats and 2.4 million acres of original survey were completed in Fiscal Year 1986.

Cadastral survey project offices were established in the Arizona and Wyoming State Offices to accommodate the large number of survey requests encountered in certain areas. The Navajo Nation Project Office executes a large number of original surveys so that legal descriptions based on the Public Land Survey System can be created for mineral leasing and located on the ground. The Gillette Project Office performs resurveys in the Powder River Basin of northeastern Wyoming where distortions in the original surveys have resulted in mislocations of coal mining operations and oil well sites and numerous trespasses.

A Geographic Coordinate Data Base test project was initiated in the Farmington Resource Area Office in New Mexico. This project will assign geographic coordinates to corners of the Public Land Survey System so that an automated Land Information System

can be created in cooperation with the Automated Lands and Minerals Record System.

Fire and Aviation Management

An anniversary portrait . . . the suppression of wildfires has been a BLM function since the agency was created in 1946. BLM annually conducts over 700 prescribed fires on nearly 100,000 acres, primarily to enhance forestry, range, and wildlife management, and undertakes more than 100 projects at a cost of \$5.6 million to rehabilitate areas burned in wildfires.

Fire Management

Fire has always been a part of the natural environment. However, BLM sees fire from two different aspects: wildfires that cause negative impacts and must be suppressed and prescribed fires that can be used toward achieving positive resources management objectives. Numerous laws have aided the establishment of the fire program, but the most significant are the Timber Protection Act of 1922, the Taylor Grazing Act of 1934, the O&C Act of 1934, the Wilderness Act of 1964, and FLPMA. The fire program continues to develop with new technology in ground equipment, aircraft, and computer technology.

The Fiscal Year 1986 fire season was near normal for BLM, but well above normal for total nationwide fire activity. BLM had more than 2,600 fires that burned 1.2 million acres. Most of these fires occurred during June in Alaska and July and August in Eastern Oregon and Idaho. Lightning caused numerous days of multiple ignitions, which spread initial attack forces very thin. At the same time, the other firefighting agencies in the areas had similar problems. Interagency reinforcements were required from outside the affected areas for several weeks in order to combat this reoccurring natural event. The Incident Command Subsystem of the national Interagency Incident Management System was fully implemented during the 1986 fire season.

The BLM-managed Boise Interagency Fire Center located in Idaho provides support to the Departments of the Interior, Agriculture, and State (for assistance to foreign countries) and to the States. Because of the high level of activity in other agencies this year, the Boise center had a very active year, supporting 727 fires. The center moved 17,190 personnel, including 759 20-person crews, utilizing contract aircraft, commercial charter, and military large transports. There were nine Interdepartmental Class I Overhead Team assignments. In addition, the center supported several non-fire activities, including search and rescue pro-

grams, law enforcement, insect spraying, floods, and earthquakes. Personnel and equipment support were provided for several locations in Africa at the request of the Office of Foreign Disaster Assistance.

The Alaska Fire Service, which is managed by BLM for Department of the Interior agencies in Alaska, has a very active fire season during the months of June and early July. They suppressed 396 fires that burned 395,169 acres. Emergency personnel, hired primarily from the Alaskan Native villages, were paid \$2.8 million during this fire season.

The use of prescribed fire to accomplish resource and fire management objectives was about normal for Fiscal Year 1986. There were 715 projects completed that burned 78,264 acres. More than 500 of the projects were for forestry management; however, the most acreage burned was for range management where 47,894 acres were treated.

Fire rehabilitation costs on damaged soil/water areas was \$5.65 million, distributed between 113 projects. Fire rehabilitation may consist of reseeded grass or shrubs and construction of protective fences or check dams.

Aviation Management

Aviation management is as old as BLM itself. From the beginning, aircraft use has increased in both quantity and quality. Today BLM contracts for a full range of aircraft services, from a Boeing 727 at the Boise Interagency Fire Center for long distance transportation of fire crews and equipment, to single-engine spray planes for application of seed and spray. Annually BLM accomplishes in the neighborhood of 50,000 flight hours at a cost of approximately \$27 million.

In 1985 the Washington Office was reorganized and a process was established to facilitate the placement of full-time aviation management positions in each State Office. Currently, all States have moved forward with this effort.



BLM is responsible for suppressing wildfires on more than 10 million acres of Federal and non-Federal lands in the 11 Western States and Alaska.



Engineering Services

An anniversary portrait . . . when BLM was established in 1946, it inherited its physical facilities from its parent agencies, the General Land Office and the Grazing Service, along with a primitive road system that reflected the miscellaneous needs of ranchers, mining companies, railroads, and county and State governments. Since the mid-1960's, BLM has constructed numerous roads and trails necessary for administration of the Public Lands and, where suitable leasable facilities are not available, has constructed its own office buildings, warehouses, shops, and other facilities tailored to the agency's resource management responsibilities.

During Fiscal Year 1986, BLM completed the fire warehouse in Fairbanks, Alaska. Also during 1986, an architectural and engineering contract was developed, awarded, and administered to design the new Fairbanks District Office complex. The contract for construction of this major complex was also awarded in Fiscal Year 1986, with construction to begin early in Fiscal Year 1987. Numerous smaller projects such as recreation facilities, fire stations, shop areas, and communications buildings were completed in addition to the major ones mentioned.

BLM provided maintenance to approximately 140 office buildings, more than 800 other BLM-owned buildings and associated water and sewer systems, about 800 developed family unit recreation sites, an additional 5,000 undeveloped (without water) sites, approximately 10,000 miles of roads, more than 1,000 miles of trails, and 30 bridges.

With Fiscal Year 1986 completions, BLM has available 1:100,000 scale surface and subsurface maps providing coverage for approximately 90 percent of the lands administered by BLM. Revision work was completed on 1:500,000 scale State bases and 1:100,000,000 wilderness maps. Photogrammetric and remote sensing support was provided by a central office at Denver as well as within each State. The first steps for automation of cartographic functions were initiated in Fiscal Year 1986, and the mapping will become an integral part of BLM's Land Information System.

Additional support was provided through survey and design of various range improvement and watershed construction projects. BLM is continuing its dam inventory and hazard assessment programs.

Information Resources Management

An anniversary portrait . . . BLM land records management responsibilities can be traced to the General Land Office established in 1812 to handle the original homestead claims and other types of land disposition. In 1946, when BLM was formed from the Grazing Service and the General Land Office, additional information management responsibilities were added.

Within BLM, automated data processing, records, and telecommunications management are not separate entities but are integral parts of information resources management. The management of information in BLM has become increasingly complex as more electronic records are created.

BLM first got into automated data processing in the 1960s, primarily for financial records. In 1978 BLM acquired its current mainframe computer system, located at the Service Center in Denver, Colorado. In 1980, BLM State Offices started obtaining mini-computer systems that tied in with the Service Center mainframe. More recently, there has been increased use of microcomputers in the various field offices.

Use of telephones and radios for communication has increased over the years and the technology used has changed significantly in many respects. Now, satellites, microwave, optical fibers, and radio repeaters are used to carry messages in addition to more conventional wire lines.

Activities during Fiscal Year 1986 focused on:

- continuing the major multiyear study for the Automated Data Processing Modernization Project, which will establish BLM needs and approaches to modernizing equipment to meet future requirements and which will be implemented in Fiscal Year 1988;
- continuing the automation of land and mineral records;
- publishing the 1985 *Public Land Statistics*;
- performing Information Systems Reviews for three State Offices to assist them in management of their information systems, telecommunications, and records management needs and capabilities;
- restructuring administrative telephone systems in response to divestiture of the AT&T Company and the associated Bell Operating Companies;
- evaluating the use of communications satellites to provide short-term support in remote areas for such activities as fighting large wildfires on Public Lands;
- using electronic mail to send messages at a high speed, thus reducing the number of relatively long and more expensive telephone conversations; and
- inventorying BLM records in all media to determine up-to-date legal retention and disposition authorities for BLM information.

Volunteers and Other Contributed Services

An anniversary portrait . . . over the last six years, 22,324 persons have demonstrated a "Take Pride in America" spirit by contributing a total of 1.5 million hours of unpaid public service, valued at \$11.3 million, to assist in conserving, developing, and managing Public Land resources, and in serving visitors to the Public Lands.

BLM's volunteer program, initially authorized in 1976 as part of FLPMA, was strengthened in 1984 with enactment of Volunteers for the Public Lands legislation (Public Law 98-540) requested by BLM.

In Fiscal Year 1986, the Volunteer Program continued to grow and is now the mainstay of BLM's participation in the Administration's "Take Pride in America" campaign, a national public awareness campaign to encourage all Americans to participate constructively in the stewardship of the Nation's natural and cultural resources. During the year 7,743 citizens—an increase of 61 percent over 1985—donated 397,373 hours of work (the equivalent of 221 work-years) valued at \$3.4 million. Costs to the Government associated with this volunteer activity

were estimated at \$304,318, indicating a benefits-to-costs relationship of 11 to 1.

Considered in terms of volunteer work-years as a percentage of BLM employee work-years, BLM's Yuma (Arizona) District in effect extended its work-force by 45 percent during 1986. A second District—Ukiah, in northern California—reported this percentage amounted to 22 percent in 1986. Ten Districts reported percentages of 5 percent or more, and the average for all 55 Districts was 3.8 percent.

BLM's volunteers assist in a diversity of ways, contributing many different kinds of skills and talents. Overall, the kind of volunteer projects that attracted the most support in 1986 continued to be those concerned with the protection and management of renewable natural resources. These included recreation, 39 percent; wildlife, 16 percent; historic or cultural, 8 percent; forestry, 6 percent; rangeland, 3 percent; wilderness, 2 percent; wild horses and burros, 2 percent; watershed and hydrology, 1 percent.

About one-third of BLM's volunteers are under 18 years of age; 9 percent are 55 or older. About one of four is female.

"Thank-You" Awards. In 1986 BLM initiated its first national awards program to acknowledge excellence in accomplishment by its volunteers, some of whom work as individuals, and some as members of organizations. Together, the winners of these first annual "Volunteers for the Public Lands" National Awards provide a kind of group portrait of BLM's dedicated volunteers, both in the diversity of their wide-ranging interests and spectrum of skills, and in the differing ways in which they serve the Public Lands and the visitors these lands are increasingly attracting. BLM also expressed its appreciation to some of its employees and units whose initiatives have resulted in notable success in attracting volunteers and making the program effective. The awards for both groups were given for two levels of accomplishment: exemplary service and outstanding service. All winners, and their accomplishments, are described in Appendix A.

F. General Administration

An anniversary portrait . . . BLM's numerous internal initiatives to reduce administrative and overhead costs, streamline, and consolidate systems have saved taxpayers \$7.1 million since these initiatives started in Fiscal Year 1985.

Administrative Services

During Fiscal Year 1986, BLM spent \$100 million for goods and services. Formal contracts awarded by the major buying offices to support field office pro-

ms totaled \$58 million. Field offices expended an additional \$42 million for small purchases.

BLM continues to exceed its goals in various socio-economic procurement programs, as shown in Table A.

Table A. BLM Procurement Program, Fiscal Year 1986

	FY 1986 Goal (\$000)	Actual Award (\$000)
For Surplus Area		
et-asides	\$ 8.0	\$12.6
all Businesses	20.7	35.4
ority Business	2.6	4.9

In Fiscal Year 1986, an Automated Fleet Management System was developed for implementation beginning in Fiscal Year 1987, to improve fleet management. The new system will provide current management data for managers and users as well as automated reporting for General Service Administration assigned vehicles. The system will also reduce time and paperwork required through electronic data entry, while providing a variety of automated reports covering over 5,000 motorized vehicles and equipment. The Bureau buying offices instituted an automated solicitation and contract document preparation system beginning 1986.

In May 1986, BLM's uniform program was expanded to allow for a broader segment of personnel to be equipped with uniforms identifying affiliation with BLM. The decision to expand the uniform program was, in part, based on recommendations developed from the Project Pride initiative. The directive which authorized the expansion of the program stated, "Uniforms and a professional appearance are especially appropriate in light of our need for visibility as professional resource managers. We are constantly trying to improve our service to the public and our professional public visibility and recognition. We are very enthusiastic about our efforts in this area and believe will further the success of the BLM's mission." Specifications are being developed that will eventually allow BLM to award a national contract for the supply of all uniform components.

Financial Management

BLM's Division of Finance in the Washington Office directs the operation of improvements to BLM's accounting system; provides guidance on financial management policy and procedures; provides coordination of and guidance for implementation of the Debt Collection Act of 1982 and Office of Management and Budget Circular A-123, Internal Control Systems; manages the Payments in Lieu of Taxes program, the BLM Public Land revenue sharing payments to State and local governments program, and monetary credits issued by BLM to the private sector.

During Fiscal Year 1986, BLM continued its program to improve cash management. The Division of Finance coordinated with the Office of the Secretary and the Department of the Treasury to continue the use of private banking "lockbox" facilities to permit the use of an electronic funds transfer system to expedite the collection and deposit of Oregon and California Grant Lands timber revenues. Approximately \$57.2 million was collected in Fiscal Year 1986 by the use of lockbox. This resulted in an estimated interest savings to the Federal Government of \$63,500 for Fiscal Year 1986.

The Division of Finance supported programs with unique financial management needs such as fire suppression administrative support teams, reimbursement procedures, mineral leasing, and billings and collections. The Division of Finance also was responsible for coordinating and overseeing BLM's implementation of internal control systems to ensure that all programs and functions performed by BLM are reviewed periodically to minimize the possibility of waste, fraud, and abuse in accordance with the Federal Managers' Integrity Act.

BLM managed the Departmentwide debt collections contract, referring 268 claims totaling \$286,296 to the contractor. In addition, a total of 100 claims totaling \$141,392 were either settled or written off during the year.

Procedures were developed for issuing, processing, and maintaining accountability for monetary credits totaling approximately \$18 million, including accrued interest. The monetary credits were issued by BLM in exchange for revoked mineral leases and certain land acquisitions authorized by law. Credits are transferable and can only be used for payment of coal lease bonus bids, rentals, and royalties due to the United States Government.

The division distributed \$117.2 million to State and local governments in Fiscal Year 1986. A total of \$17.1 million in Public Land revenue sharing pay-

ments was paid to State and local governments, and a total of \$99.4 million in payments in-lieu of taxes were distributed to more than 1,917 units of local government. A summary of payments made to State and local governments in Fiscal Year 1986 appears in Section III of this report.

Evaluations / Audits

BLM's Division of Program Evaluation in the Washington Office is responsible for directing BLM's program evaluation system. The division assures that objective feedback is provided to the Director of BLM in evaluating the strategy, efficiency, products, impacts, and effectiveness of BLM programs and the managerial, administrative, and functional performance of BLM officials in exercising their delegated authorities and assigned responsibilities. It conducts regularly scheduled general management, program, and special evaluations. The division also maintains coordination and liaison with the General Accounting Office and the Department of the Interior's Inspector General's Office. In addition, it provides training and technical support to State and program offices in matters related to technical evaluation.

During Fiscal Year 1986, the Division of Program Evaluation completed the following evaluations:

- New Mexico General Management Evaluation, February 1986
- California General Management Evaluation, March 1986
- Montana General Management Evaluation, May 1986
- Bureauwide Mineral Materials Program Evaluation, April 1986

Also during Fiscal Year 1986, Administrative Procedures Reviews were conducted in California, Idaho, and New Mexico. Information Systems Reviews were conducted in California, Colorado, and Nevada. A Bureauwide Technical Procedures Review was conducted on mining claim recordation. Technical Procedures Reviews were also conducted on fire management in Nevada and Utah, aviation in Alaska, solid mineral leasing in New Mexico and Colorado, and appraisal operations in Utah. An Acquisition Management Review of the Denver Service Center was also conducted, and Personnel Management Evaluations were conducted in Idaho, New Mexico, and Wyoming.

Numerous evaluations were completed by State Office organizations including general management evaluations of the following district offices:

Bakersfield, California; Coeur d'Alene, Idaho; Dickinson, North Dakota; Ely, Nevada; Las Cruces, New Mexico; Vernal, Moab, and Richfield, Utah; Roseburg and Vale, Oregon; Worland, Wyoming; and Yuma, Arizona. Statewide program evaluations were conducted on recreation management in Alaska, recreation maintenance in Oregon, cultural resources in Wyoming, and wilderness in Wyoming. Statewide special evaluations were conducted on mineral patents in Alaska, range management and maintenance in Idaho, birds of prey in Idaho, land use planning in Idaho, and training in Utah.

BLM provided information and assistance to the General Accounting Office and to the Office of the Inspector General reviewing BLM programs and activities. Comments were prepared for all recommendations to draft and final reports which directly involve BLM. The division also provided technical support in fulfilling the Office of Management and Budget's Circular A-123 for Internal Control Reviews.

During Fiscal Year 1986, the division provided evaluation support to the Department of the Interior for a special evaluation on Equal Employment Opportunity and for the development and implementation of a Departmentwide personnel management evaluation questionnaire. Assistance in the statistical analysis of various questionnaires used within BLM was also provided.

Management Efficiencies

BLM is actively supporting the Administration's effort to streamline and make the Government more efficient while at the same time maintaining its service to the public. During Fiscal Year 1986, BLM identified numerous internal initiatives to reduce its administrative and overhead costs, streamline, and consolidate systems. The efforts resulted in administrative savings in Fiscal Year 1986 equivalent to 83 full-time positions and nearly \$3.2 million.

BLM personnel staffs in three locations were consolidated to reduce total personnel staffing. The Eastern States Office and the Washington Headquarters Office are now served by one personnel office in Washington, D.C. Personnel services for the Idaho State Office and the Boise Interagency Fire Center were combined into one office in Boise. The Colorado State Office is now served by the Denver Service Center personnel office in Denver.

Significant savings also resulted from reduction of BLM's vehicle fleet and automation of labor-intensive efforts. Many of these efforts are relatively small projects initiated by BLM State Offices, but they are significant when considered in total.

In addition to these efforts, BLM has trimmed and reorganized its Washington Office staff, which will allow more dollars to flow to the field organizations. Appendix B provides a copy of the new Washington Office table of organization.

Significant savings also resulted from reduction of BLM's vehicle fleet and automation of labor-intensive efforts. Many of these efforts are relatively small projects initiated by BLM State Offices, but they are significant when considered in total.

Personnel Management

BLM's Division of Personnel in the Washington Office concentrated much of its efforts on developing personnel policies in connection with streamlining of personnel services, career development programs, and position classification issues during Fiscal Year 1986.

In an effort to improve productivity through maximum use of human resources, BLM is strongly advancing its career program. The new program has four major components: New Employee Orientation, Employee Excellence Seminar, Professional Excellence Program, Management and Leadership, and Advanced Leadership. The first two components are geared to new employees at the beginning and early stages of their careers and are designed to build an understanding of and commitment to BLM's mission and their role in that mission. The final three components focus on identifying and developing both a reserve of technological expertise and a body of high potential future managers and leaders.

During Fiscal Year 1986, BLM employed approximately 10,000 individuals. Major emphasis was placed on position management and position classification throughout BLM. Comprehensive state-level position classification reviews were conducted on a wide variety of professional and technical support positions; local personnel management committees in the field provided key direction for this effort. Monitoring of position management trends led to development of locally managed plans to achieve a better record in position management.

The Position and Pay Management Steering Committee continued to play a highly visible and important role as a major subcommittee of the BLM Management Team in overseeing the plans and progress made on a number of highly important personnel management activities in BLM.

III. Financial Management

A. Appropriations and Expenditures

BLM programs are funded through six major operating appropriations, several minor permanent and trust appropriations, and reimbursements from other Federal agencies for work performed on their behalf. In addition, the BLM budget includes one annual appropriation and numerous permanent appropriations that provide funds to State and local governments in which Federal land resources are located, either as payments in lieu of taxes or as shared revenues from the sale, leasing, or disposition of resource commodities.

FY 1986 BLM Public Lands

History of the total funding available to BLM since Fiscal Year 1983 includes the following:

	FY 1983	FY 1984	FY 1985	FY 1986
	(in millions)			
Operating Appropriations	\$ 427.9	\$ 482.7	\$ 480.0	\$ 457.8
Payments-in-Lieu of Taxes	96.3	105.0	103.0	99.9
Permanent Payments to States, etc.	579.8	58.1	141.0	12.4
For miscellaneous	6.4	7.7	4.8	4.7
TOTALS	\$1,110.4	\$ 653.5	\$ 728.8	\$ 574.8

Funding and obligation data on a program-by-program basis for Fiscal Years 1985, 1986, and 1987 follow:

	FY 1985 Actual	FY 1986 Actual	FY 1987 Proposed
	(in thousands)		
PLANNING (including Oregon & California Grant Lands)			
Appropriation	\$ 9,265	\$ 9,222	\$10,008
Obligations	9,264	\$ 9,201	10,008
Work Years	216	214	219
ENERGY AND MINERALS PROGRAMS			
OIL AND GAS MANAGEMENT			
Appropriation	42,804	42,630	46,019
Obligations	42,804	42,228	46,019
Work Years	1,134	1,115	1,178
GEO THERMAL MANAGEMENT			
Appropriation	3,227	2,639	2,475
Obligations	3,108	2,612	2,475
Work Years	72	60	55
COAL MANAGEMENT			
Appropriation	17,962	18,506	13,695
Obligations	17,370	18,444	13,695
Work Years	285	310	280
OIL SHALE/TAR SANDS MANAGEMENT			
Appropriation	2,172	2,008	0
Obligations	1,931	1,925	0
Work Years	37	25	0
NONENERGY LEASABLE (MINERALS LEASING AND URANIUM OPERATIONS)			
Appropriation	4,658	4,621	4,489
Obligations	4,458	4,617	4,489
Work Years	91	101	90
MINING LAW ADMINISTRATION AND MINING MATERIALS			
Appropriation	10,051	9,891	11,199
Obligations	9,883	9,857	11,199
Work Years	264	267	289
LANDS PROGRAM			
ENERGY AND NONENERGY REALTY			
Appropriation	17,888	16,076	16,774
Obligations	17,853	16,005	16,774
Work Years	474	445	445
ALASKA LANDS			
Appropriation	13,022	12,822	13,666
Obligations	12,999	12,766	13,666
Work Years	302	292	292

	FY 1985 Actual	FY 1986 Actual	FY 1987 Proposed
	(in thousands)		
RIGHTS OF WAY			
Appropriation	6,890	7,442	8,063
Obligations	6,885	7,442	8,063
Work Years	194	224	220
ACQUISITIONS			
Appropriation	24,088*	8,784	9,190
Obligations	19,336	4,143	9,190
Work Years	18	48	37
WITHDRAWAL REVIEW			
Appropriation	4,034	3,583	3,732
Obligations	4,006	3,339	3,732
Work Years	100	85	93
WILDERNESS REVIEW			
Appropriation	\$ 6,419	\$ 6,967	\$ 7,254
Obligations	6,344	6,959	7,254
Work Years	150	159	150
CREATION MANAGEMENT			
Appropriation	7,337	8,284	9,674
Obligations	7,273	8,348**	9,674
Work Years	173	190	196
NATURAL HISTORY AND CULTURAL SOURCE MANAGEMENT			
Appropriation	5,279	5,783	6,618
Obligations	5,230	5,780	6,618
Work Years	119	125	120
RENEWABLE RESOURCE PROGRAMS LAND MANAGEMENT (INCLUDES SOIL, WATER, AND AIR)			
Appropriation	60,195	55,431	61,627
Obligations	57,337	55,606**	61,627
Work Years	1,234	1,181	1,191
FOREST MANAGEMENT (INCLUDES PUBLIC LAND AND O&C LANDS)			
Appropriation	54,766	51,485	51,302
Obligations	54,209	51,568**	51,302
Work Years	1,037	1,096	993
WILDLIFE HABITAT MANAGEMENT			
Appropriation	16,877	16,503	17,296
Obligations	16,724	16,464	17,296
Work Years	346	350	319

*Sanberry Wilderness area special acquisition appropriated \$14,700,000.

**Obligations include expenditures from prior year unobligated carryover funds.

	FY 1985 Actual	FY 1986 Actual	FY 1987 Proposed
	(in thousands)		
WILD HORSE AND BURRO MANAGEMENT			
Appropriation	17,039	16,234	17,777
Obligations	16,899	16,230	17,777
Work Years	148	152	125
SUPPORT SERVICES			
LAW ENFORCEMENT			
Appropriation	\$ 2,351	\$ 3,177	\$ 3,320
Obligations	2,335	3,168	3,320
Work Years	33	38	33
CADASTRAL SURVEY			
Appropriation	24,676	25,605	26,681
Obligations	24,591	25,554	26,681
Work Years	425	461	421
ENGINEERING AND MAINTENANCE			
Appropriation	15,828	15,441	16,865
Obligations	15,453	15,313	16,865
Work Years	265	269	245
FIRE MANAGEMENT			
Appropriation	9,258	10,346	10,834
Obligations	9,182	10,352**	10,834
Work Years	137	144	148
GENERAL ADMINISTRATION			
Appropriation	83,136	79,528	85,101
Obligations	83,119	79,520	85,101
Work Years	1,207	1,064	1,141
DATA MANAGEMENT			
Appropriation	14,122	13,309	15,351
Obligations	14,047	13,339**	15,351
Work Years	221	252	231

**Obligations include expenditures from prior year unobligated carryover funds.

Revenues and Receipts

BLM is a primary collector of Federal revenues. Gross receipts from the lease, use, and sale of Public Lands and resources totaled approximately \$244 million in Fiscal Year 1986 (see Table B). Of this amount, \$79 million will be returned to the States, \$5.4 million was transferred to the Reclamation Fund, \$8 million was transferred to other Federal Agencies, and the remaining \$141.4 million went into the general fund of the United States Treasury. Monies appropriated from the Treasury to BLM for operating expenses totaled \$471.8 million in Fiscal Year 1986.

The development and use of BLM lands and resources generate receipts from a variety of sources. Total receipts totaled \$162.2 million in Fiscal Year 1986. Receipts generated by other BLM programs, including sales of Public Lands, simultaneous oil and gas leasing fees, grazing, right-of-way leases, permits, and rentals, and other miscellaneous receipts have remained constant with receipts from past years.

State and Local Shares

BLM's most direct fiscal impact upon States that include Public Lands through revenue sharing and other direct payments. In the decade from 1976 through 1986, State and local governments received nearly \$3.9 billion from the Department of the Interior for their share of revenues collected from the lease or use of Public Land resources and as in-lieu payments for tax-exempt lands.

Revenue Sharing

Restrictions authorized under the Gramm, Rudman, Hollings Balanced Budget and Emergency Deficit Control Act of 1985 temporarily delayed revenue sharing payments during Fiscal Year 1986 under the Santini-Burton Land Sales Act, the Coos Bay Wagon Road Grant Land Act, and the National Grasslands Act. The remaining revenue sharing programs were not affected by the sequestration order since these annual and semiannual payments are not processed until the beginning of Fiscal Year 1987.

Payroll Grazing Act revenues are distributed according to the type of land generating them. Of the fees collected from livestock grazing districts, 12.5 percent is distributed to the State for expenditure by the State legislature to benefit the counties generating the grazing receipts. Grazing revenues generated on Public Lands outside the grazing districts are shared equally with the State. State legislatures have the authority to expand the funds to benefit the counties where grazing monies are collected.

Land sale revenues generated in Nevada under the Santini-Burton Act are collected and distributed on an annual basis. This Act authorizes the allocation of 50 percent of gross revenues back to Clark County or municipality in which these revenues are generated, and 5 percent to the State of Nevada. The remaining revenues are deposited in the Land and Water Conservation Fund for the purchase of environmentally sensitive land in the Lake Tahoe Basin.

Table C outlines the distribution of receipts to States and indicates the sources of revenue sharing made by BLM during Fiscal Year 1986.

Payments in Lieu of Taxes

Local government units within Western States are the principal beneficiaries of the 1976 Payments in Lieu of Taxes Act. This law was enacted to provide Federal payments to those areas where large portions of land are in Federal ownership and, therefore, are exempt from local property taxes. Serving as a supplement to revenue sharing funds, payments in lieu of taxes are made directly to local governments and may be used for any governmental purpose.

Lands eligible for payments in lieu of taxes are Federally owned lands in the National Forest and National Park Systems, lands administered by BLM, lands dedicated to the use of Federal water resource development, dredge disposal areas under the jurisdiction of the Army Corps of Engineers, National Wildlife Reserve Areas, inactive and semiactive Army installations, and certain lands donated to the United States Government. The Act specifically prohibits payments for lands (but not certain donated lands) that were tax exempt before being acquired from State or local governments.

Since payments in lieu of taxes started in 1977, more than \$1 billion has been paid to local governments; about \$99 million of that amount was paid in Fiscal Year 1986 (see Table D).

Table B. Bureau of Land Management Receipts

	FY 1986 Actual	FY 1987 Estimated
STATEMENT OF PUBLIC LAND RECEIPTS		
Mineral Leases and Permits	\$ 5,731,887 ^a	\$ 1,000,000
Sales of Public Lands & Materials (Includes Burton-Santini Act sales in Nevada)	13,943,268	13,300,000
Simultaneous Oil & Gas Filing Fees	26,584,703	24,000,000
Fees and Commissions	1,542,094	2,300,000
Sales of Public Timber	12,811,361	14,300,000
Oregon and California Grant Lands (Timber Sales)	143,682,908	137,000,000
Coos Bay Wagon Road Lands (Timber Sales)	5,686,693	5,300,000
Grazing Fees	14,574,149	15,123,000
Rights-of-Way Rentals	3,271,702	3,400,000
Rent of Land	379,465	400,000
Miscellaneous Leases and Permits	1,286,347	600,000
Nonoperating Revenue ^b	13,650,160	10,545,000
Other ^c	963,406	1,000,000
TOTALS	\$244,108,143	\$228,268,000
ALLOCATION OF PUBLIC LANDS RECEIPTS		
States and Counties	\$ 79,170,076	\$ 81,054,000
Reclamation Fund	15,470,809	17,176,000
Transferred to Other Federal Agencies	8,045,693	8,500,000
Indian Trust Fund	9,861	
General Fund	141,411,704	121,538,000
TOTALS	\$244,108,143	\$228,268,000

^aOnly reflects receipts collected for the rental of oil and gas pipeline rights-of-way, Natural Petroleum Reserve revenues, and miscellaneous mineral revenues administered by the Bureau of Land Management.

^bIncidental receipts from fines, taxes, etc., that are unrelated to routine public land administration.

^cReceipts from Special Recreation Use Fees.



**Table C. Payment of BLM Receipts to States
as of September 30, 1986**

	Mineral Leases and Permits	Forage Receipts Outside Taylor Grazing Districts	Forage Receipts Inside Taylor Grazing Districts	Sale of Public Land and Timber	Other	Total
na	\$ 0	\$ 0	\$ 0	\$ 132	\$ 0	\$ 132
	1,590,671	0	0	10,631	0	1,601,302
a	20,212	106,523	95,170	87,221	0	309,126
as	0	0	0	225	0	225
nia	5,324	120,066	19,252	108,146	0	252,788
do	(99,214) ^a	33,777	80,736	34,946	0	50,245
	2,099	23,485	186,481	20,876	0	232,941
	0	0	0	348	0	348
	0	86	0	0	0	86
ota	0	0	0	67	0	67
na	4,029	130,755	113,355	11,746	614,467	874,352
	0	17,205	316,950	1,334,210 ^b	0	1,668,365
exico	298,385	150,361	208,887	29,486	13,935	701,054
Dakota	120	6,592	0	46	0	6,758
ma	87	223	0	1,975	16,816	19,101
	298	34,009	152,775	10,921,126 ^c	0	11,108,208
Dakota	15	54,226	0	376	1,776	56,393
	20,373	205	163,457	19,769	1,326	205,130
gton	0	19,843	0	8,951	0	28,794
sin	0	0	0	604	0	604
ng	179,390	302,738	186,564	28,717	0	697,409
Totals	\$2,021,789	\$1,000,094	\$1,523,627	\$12,619,598	\$648,320	\$17,813,428

es \$151,182 refund of Fiscal Year 1985 overpayment.

es \$1.3 million for Santini-Burton land sales.

es \$10.2 million for Oregon and California Grant Land (excluding a prepayment of Fiscal Year 1985 receipts
g \$50.9 million) and \$0.4 million for Coos Bay Wagon Road timber receipts.



**Table D. Summary of Payments in Lieu
of Taxes by State**

<u>State</u>	<u>FY 1986 Payment</u>
Alabama	\$ 111,410
Alaska	4,548,279
Arizona	7,937,859
Arkansas	1,005,151
California	10,866,083
Colorado	5,918,866
Connecticut	24,337
Delaware	4,444
District of Columbia	5,943
Florida	1,133,944
Georgia	695,613
Hawaii	9,087
Idaho	7,419,386
Illinois	269,445
Indiana	143,646
Iowa	122,155
Kansas	369,620
Kentucky	631,225
Louisiana	195,444
Maine	56,282
Maryland	42,545
Massachusetts	75,358
Michigan	1,269,323
Minnesota	859,788
Mississippi	342,221
Missouri	1,116,761
Montana	7,931,876
Nebraska	316,891
Nevada	5,611,340
New Hampshire	277,905
New Jersey	37,073
New Mexico	10,200,296
New York	67,384
North Carolina	1,236,979
North Dakota	505,988
Ohio	215,042
Oklahoma	732,818
Oregon	2,714,285
Pennsylvania	199,537
Rhode Island	0
South Carolina	121,195
South Dakota	1,583,214
Tennessee	435,873
Texas	1,253,452
Utah	9,115,006
Vermont	220,993
Virginia	1,110,334
Washington	1,812,262
West Virginia	764,064
Wisconsin	376,656
Wyoming	7,365,612
Puerto Rico	12,139
Virgin Islands	79,805
Guam	1,640
Total	\$99,473,874

A Look Ahead—1987

Fiscal Year 1987 will offer many challenging issues and programs for BLM in its 41st year of managing the Nation's Public Lands. Major BLM management programs for 1987 include:

the Administration's "Take Pride in America" campaign;
major land exchanges to improve manageability of Public Lands;
improvement of minerals leasing and management programs, particularly oil and gas and coal, as well as adjudication of mineral patent applications;
proper multiple-use management of rangeland, forest lands, and wildlife habitat;
maintenance of healthy wild horse and burro herds at viable management levels;
hazardous materials management;
BLM/Forest Service Interchange;
development of a workable system for implementing the Automated Land and Mineral Record System;
efficient implementation of land use plans;
riparian area management;
streamlining and strengthening support programs, such as cadastral survey and fire/aviation management, and general administrative processes.

The outcome of the National Wildlife Federation suit is uncertain at this time. However, various programs, including land exchanges and sales, withdrawal review process, Recreation and Public Use Act leasing, mineral leasing, and mining recordation, could continue to be significantly affected in Fiscal Year 1987, depending upon the outcome of the suit. In turn, many individual citizens, agencies, State and local governments, and other agencies that are concerned with these programs could also be significantly affected. Streamlining of important goals and emphases for BLM programs is provided in the following

Wide Initiatives

Pride in America

Develop and carry out programs in all BLM offices to support the Administration's "Take Pride in America" campaign.

Planning

- Establish better ties between the land use plans and implementation of decisions (including allocation of resources) by linking planning decisions with the annual work plan and identifying how automation can be used to improve implementation of plans.
- Revise the guidance for evaluation and designation of areas of critical environmental concern.

Automated Land and Mineral Record System

- Develop the final schedule for long-range implementation of the Automated Land and Mineral Record System.
- Determine software needs based on selected projects and issue the contract for the software.
- Develop key strategy for coordination with other agencies.
- Continue data collection necessary to support the project.

Riparian Area Management

- Release a final riparian management policy statement after completion of nearly two years of extensive consultation with outside groups.
- Design an education effort to demonstrate the values and benefits of proper riparian area management.
- Continue State-level riparian workshops and hold a series of Riparian Area Management Workshops in Prineville, Oregon, involving BLM; other Federal, State and local agencies; interest groups; public land users; and individuals.

Hazardous Materials Management

- Develop a hazardous materials policy so that BLM can effectively deal with toxic materials on Public Lands.
- Seek legislation to amend Section 3 of the Recreation and Public Purposes Act of 1926. The proposed amendment would authorize issuance of patents without a reverter provision for leases issued for solid waste disposal or other purposes that may result in the release of hazardous materials. Such a bill would assure that much-needed landfill sites would be available to small communities and that these communities would have primary responsibility for their operation and maintenance. It would also assure that supervision of local waste sites would be handled by State and local governments and the Environ-

mental Protection Agency, entities that have the necessary expertise to handle waste sites that may contain hazardous materials.

- Establish an effective working arrangement between land managing agencies and the Environmental Protection Agency for cleanup activities on Federal lands. Important parts of this effort are to ensure that agency expertise is used for highest priority matters and to avoid duplication of effort among Federal agencies.

BLM/Forest Service Interchange

- With the Forest Service, resubmit the proposed Interchange legislation to the 100th Congress. The legislative proposal would transfer approximately 25 million acres between BLM and the Forest Service and transfer mineral management responsibilities to the Forest Service for that agency's lands. The proposed Interchange is designed to enhance public service and improve management efficiency for both agencies. It is expected to reduce agency costs by between \$13 million and \$15 million annually.

Energy and Minerals Programs

Oil and Gas Management

- Support legislation to improve the oil and gas leasing program by preserving a two-tiered system under which all tracts would first be offered competitively, with those receiving no bids (or less than a prescribed minimum) being available for noncompetitive leasing.
- Prepare and publish On-Shore Orders that continue to implement the Federal Oil and Gas Royalty Management Act.

Coal Management

- Hold regional coal team meetings to determine for each coal region whether to resume planning for regional coal leasing, defer a decision for a specified period of time, or recommend that the region convert to leasing by application.
- Issue draft rulemaking for processing of coal preference right lease applications upon completion of negotiations with the conservation groups. Resume processing coal preference right lease applications once final rulemaking becomes effective, exclusive of those applications located in wilderness areas or wilderness study areas, where processing is prohibited by statute.
- Finish implementing revisions to the Federal coal

leasing program based on the program review and the Secretary's decisions, including continued processing of proposed rulemaking on unsuitability criteria.

Oil Shale Management

- Scrutinize unpatented oil shale claims to determine their status and validity and intensively review methodologies for determining validity of claims.
- Continue inspection and enforcement visits on existing tracts to ensure that the terms of the leases are being met and that all applicable State and local laws are being observed.

Mining Law Administration

- Continue to eliminate delays in the adjudication of mineral patent applications.
- Propose revised surface management regulations to better define "significant surface disturbance" and the need for reclamation bonds.

Land Programs

Lands

- Emphasize exchanges to consolidate ownership and enhance manageability. Overall during 1995 BLM expects to exchange 255,000 acres, as well as process 450 desert land entry applications, offer 10,000 acres for sale, and process 250 applications under the Recreation and Public Purposes Act.
- Identify and resolve agricultural trespass on Public Lands, focusing on areas with high potential for environmental damage and significant loss of income to the public.
- Develop regulations to prohibit unauthorized use, occupancy, or development of the Public Lands and to provide for recovery of administrative and rehabilitation costs. BLM expects to complete action on 500 unauthorized use cases in Fiscal Year 1987.

Alaska Lands

- Expedite Native lands conveyances.

Rights-of-Way

- Complete final regulations for both cost recovery and rental provisions for rights-of-way.
- Complete a study of methods to expedite processing and eliminate overlapping procedures for

applications to drill on oil and gas leases and related rights-of-way.

Natural Resources

Continue to vigorously enforce the Archaeological Resources Protection Act of 1979, which prohibits excavation or removal of archaeological resources without a permit, and also the sale, purchase, or transport of illegally removed remains.

Place greater emphasis on monitoring permittee compliance with permit terms and conditions to ensure the completion of good-quality and cost-effective archaeological work.

Wilderness Review and Management

Actively participate in the 4th World Wilderness Congress to be held for the first time in the United States in September 1987. More than 1,000 representatives from throughout the world will meet to discuss wilderness and wild lands problems.

Continue the emphasis on monitoring and surveillance of activities in wilderness study areas.

Wildlife Resource Programs

Rangeland Management

Develop a Bureauwide policy for monitoring range and rangeland uses to ensure proper management and utilization of rangeland and to facilitate multiple-use management. Consultation, coordination, and cooperation with permittees, lessees, landowners, other agencies, and other affected members of the public will continue to provide full opportunities for public involvement in BLM's range management program.

Issue proposed regulations authorizing Cooperative Management Agreements between BLM and selected grazing permittees/lessees.

Submit a report to Congress that describes a comprehensive program for minimizing salt contributions to the Colorado River from lands administered by BLM, as required by the Colorado River Basin Salinity Control Act.

Timber Management

Conduct an in-depth analysis of timber sales program on Public Lands, identifying specific costs and benefits, to enable BLM to make reasonable future decisions about its timber management program.

- Continuing through 1992, begin to reforest identified lands that have not responded to reforestation efforts in the past and are in need of reestablishment of the natural forest.

Wildlife Habitat Management

- Improve wildlife habitat on Public Lands, through coordination with other BLM programs, habitat management efforts on the ground, and continue close cooperation with State wildlife agencies.
- Increase efforts to encourage private investments of funds, materials, and labor for on-the-ground wildlife projects and activities. Findings and recommendations from a recently established fish and wildlife private investments team will outline new funding opportunities for fish and wildlife projects.
- Develop and implement habitat plans and on-the-ground actions for threatened and endangered species, species of high economic value, and non-game species of high Federal interest, riparian/wetland areas, and aquatic/fisheries habitats.
- As part of strategic fish and wildlife planning, form ad hoc teams to focus on habitat management for raptors, waterfowl, and anadromous fish along the Pacific Coast.

Wild Horse and Burro Management

- Maintain healthy herds of wild horses and burros in balance with other resource values at appropriate management levels as determined in land use plans and ensure humane disposition of excess animals through adoption or other methods.
- Carry out adoption program to meet the planned adoption target of 13,500 wild horses and burros (a 50 percent increase over Fiscal Year 1986) and identify approaches for additional adoptions. Because of the emphasis on adoptions and the amount of funding needed to maintain unadopted animals, fewer animals—approximately 8,500—will be gathered.
- Review the recommendations of the Wild Horse and Burro Advisory Board, examine closely all aspects of the program, and develop a comprehensive policy that will enable more efficient administration of the Wild Free-Roaming Horse and Burro Act while ensuring humane treatment of the animals.

Support Services

Cadastral Survey

- Streamline the cadastral survey program.

Fire and Aviation Management

- Strengthen the aviation management program to ensure safe and cost-effective aviation is provided to BLM's resource managers.
- Review BLM's fire management program.

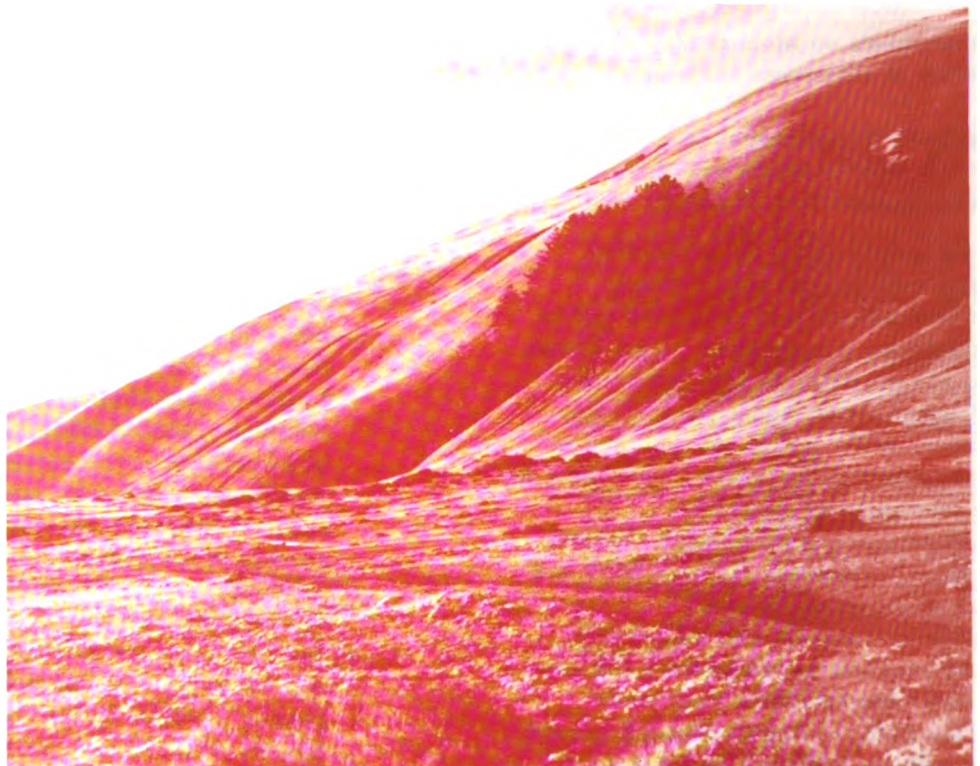
Volunteers and Other Contributed Services

- Work with BLM field managers and volunteer coordinators to improve stewardship on the Public Lands.

General Administration

- Streamline administrative processes by simplifying or reducing processing requirements and using automation when feasible.

- Continue to develop mechanisms to enhance and improve overall employee career development programs.
- Continue to use private banking "lockbox" facilities that permit the use of an electronic funds transfer system to expedite the collection and deposit of revenues. Projections for Oregon and California Grant Lands timber collections indicate that interest savings for Fiscal Year 1987 could exceed \$200,000, using the lockbox facilities. It is also projected that a total of \$27 million will be collected via lockbox procedures for the bonus bids and first year's rentals for onshore mineral competitive lease sales. Utilization of lockbox could produce an additional \$52,500 in interest savings.



Photographer: Tony Staed

APPENDIX A
"VOLUNTEERS FOR THE PUBLIC LANDS" NATIONAL AWARDS

APPENDIX A

"VOLUNTEERS FOR THE PUBLIC LANDS" NATIONAL AWARDS

erty individual volunteers and 17 volunteer groups honored by the Bureau of Land Management) for services contributed during 1986 to assist agency in managing the Public Lands.

n of the winners of BLM's first "Volunteers for the c Lands" national awards were awarded plaques exemplary" service, and 37 were awarded certi- for "outstanding" service.

making the awards, BLM Director Robert F. Bur-acknowledged "with great appreciation" the win- contributions to "the conservation and gement of natural or cultural resources of the d States through volunteer service for America's c Lands." The winners:

"EXEMPLARY" VOLUNTEER SERVICE

Individual Volunteers

icia Robins Flint of Dolores, Colorado, has teered her archaeological skill since 1982 at s Anasazi Heritage Center. Dr. Flint's work in- d surveys and excavation, collections manage- , conducting tours, developing educational rials, and recruiting and supervising other teers.

Glover, a senior citizen of Roseburg, Oregon, eded over the last 13 years in gaining Federal, and community support for construction of the le North Umpqua Trail. Since 1981, Mr. Glover rovided over 2,500 hours of his trail-building to make the trail a reality.

and Dick Newbold, from Hanover, Pennsylv- ave served as campground hosts at Burro , near Kingman, Arizona, for eight months out h year since 1982. They presented to camp- d visitors hand-drawn maps of nearby wildlife eologic areas and a slideshow on desert wild- s. The Newbolds also volunteered for BLM's e program, conducting a raptor inventory of Hu- Valley and monitoring 24 nests of rare species vks.

e Zuber has coordinated the volunteer program M's Ridgecrest Resource Area, California Desert t, for the past six years. She has contributed ,900 volunteer hours and handled all adminis- requirements for a program averaging 16 eers and several organizations.

Organized Volunteer Groups

The Fraternity of the Desert Bighorn has served over the last three years in the Las Vegas and Ely Districts, Nevada, by contributing construction labor, project design, equipment, and materials for wildlife habitat improvements, such as water developments and protective fences.

The Friends of Red Rock Canyon contribute to the success of the interpretive and resource manage- ment programs at BLM's Red Rock Canyon Recrea- tion Lands, near Las Vegas, Nevada. Members of this volunteer group staff the visitor center information desk, lead interpretive walks, catalog slides, co- sponsor (with BLM) environmental education work- shops, pick up litter, and assist in patrols and pho- tomonitoring of resources. The group donates more than 2,000 hours each year to this popular recreation area.

The Garnet Preservation Association has worked with Montana's Butte District since 1982 to stabilize and restore Garnet Ghost Town, a turn-of-the-century mining camp near Missoula that has become a popu- lar attraction for visitors interested in the early de- velopment of the American West.

Garten Foundation's Fishermen's Bend Volun- teers, Salem, Oregon, have donated their labor two days a week for 40 weeks at the Fishermen's Bend Recreation Site. These volunteers are seven mentally handicapped persons, ranging in age from 20 to 30, who have contributed more than 1,700 hours of work in trail maintenance, building and grounds main- tenance, rehabilitation work, and cleanup.

The Southwestern Region of the National Speleological Society for 20 years has given volun- teer assistance and expertise in the care of over 800 caves near Roswell, New Mexico. The group has helped conduct tours, discover new caves, conduct migratory bat population censuses, produce photo- graphic journals, conduct inventories, map caves, and remove trash and graffiti from caves.

FOR "OUTSTANDING" VOLUNTEER SERVICE

Individual Volunteers

Roger and Donna Aitkenhead monitored wildlife

in the summers of 1985 and 1986 and provided professional quality photography for the Susanville, California District.

Richard Austin for the past two years has assisted in operating a mobile visitor contact trailer and informing visitors about special management areas in California's Desert District.

William X. Chavez, a professor at New Mexico Institute of Mining and Technology, organized and led his students in a volunteer project to completely inventory all mining claims within the Sierra Ladrones Wilderness Study Area in New Mexico.

Keith Collins assisted the Lander Resource Area, Wyoming, to inventory and evaluate the Rawlins-Fort Washakie Stage Line, which is eligible for the National Register of Historic Places, and the Oregon-Mormon National Historic Trail.

Andrew and Julia Craw, a septuagenarian couple from Alturas, California, inventoried cultural and paleontological resources on approximately 23 miles of ephemeral stream courses and supplied BLM with survey data, site records, and detailed journals.

Four college-student interns—**Michael Fong** of the University of California at Berkeley, and **Sally Hunt**, **Sonja Duke**, and **Julie McLean** of the University of Washington—worked as a group, completing 3,000 acres of cultural resource inventory in Salt Lake District, Utah. They also designed and constructed two interpretive displays for the district office reception area.

Norma Fullmer was a volunteer recreation worker for 16 months on the Little Sahara Recreation Area in Utah where she worked in a variety of jobs, such as facilities maintenance, and assisted in search-and-rescue.

Sandra Gourdin was a volunteer receptionist and temporary fire dispatcher at the Spokane, Washington District.

John Hunt was a volunteer river ranger for three months on the Owhyee National Wild and Scenic River, Vale District, Oregon. He conducted river safety and maintenance patrols and assisted visitors on 95 miles of river.

Andrea D. Kurman and **Sandra A. Major**, Student Conservation Program participants, helped to organize and carry out many cave protection, restoration, and research projects, including writing conservation plans for two fragile caves in New Mexico's Roswell District.

Lorene Lambert volunteered her professional public relations skills in support of the Tennessee Wild Horse and Burro Days, an event that drew 3,800 people and where 160 wild horses and burros were adopted.

Judy Perkins volunteered approximately 1,000 hours through the summer of 1986 in the Winnemucca District, Nevada. She completed a back-country use survey, provided visitor information about the area, and did cleanup work at Onion Valley Reservoir.

Neil Rizos, a Student Conservation Program participant in the Dillon Resource Area, Montana, conducted a wildlife inventory of more than 130,000 acres, locating approximately 100 ferruginous hawk nests.

Stephen Schaefer, a Student Conservation Program participant, assisted BLM and the Wyoming Department of Environmental Quality in plugging 21,000 open drill holes in the Shirley Basin abandoned drill hole project. He helped supervise a crew of 30 college and high school students to complete the project ahead of schedule.

Nobel Stidham invented, designed, and built a cave graffiti-removal machine. He contributed his own money and time to develop the machine, which he then made available to the Roswell, New Mexico District Office on a long-term loan.

Wayne and Judy Sutherland, **Pete Uhl**, and **Jerry Dick** worked as volunteers with the Worland Wyoming District's cave management program. They photomonitoried Horsethief Cave to document the effects of 11 years of visitor use on fragile and unique cave resources and then documented recommendations for future equipment needs, methodology, and management direction for the cave.

Organized Volunteer Groups

Anchorage School District Career Center, associated with a vocational high school in Anchorage, Alaska, has contributed continued service for BLM during the past 11 years. The high school staff has provided as many as 80 students annually in support of such BLM projects as Alaska Outdoor Week and to conduct such work as trail clearing, graphics, and maintenance service.

Western Oregon Furtakers Association, Vale, Oregon, planted vegetation such as willow, cottonwood, and olive trees along streams and reservoirs.

Friends of the Mustangs, Grand Junction, Colorado, over the past four years has inventoried and monitored wild horses, assisted potential adoptors, constructed facilities, and maintained the animal stock on the Little Bookcliffs Wild Horse Area, a 28,000-acre tract of Public Land near Grand Junction.

Goddard High School Chapter of the Farmers of America has done monitoring studies, experimental brush control, erosion control, and construction work since 1984 for the Roswell District, New Mexico.

Indian Cave Volunteer Tour Guides, Carson City, Nevada, has for 11 years conducted an active program of cultural resources interpretation at the nationally significant Grimes Point Archaeological Area.

Museum of Western Colorado, Grand Junction, Colorado, coordinated and led volunteers who did 4,000 hours of work on BLM's 280-acre Rabbit Valley Site, which contains a significant concentration of plant and animal fossils. As part of their work in developing the site, they constructed a 1-mile fence and a trail-loop to take visitors on the "Trail Through Time" and developed a brochure, displays, and signs to inform the public of paleontological, geological, and natural resources in the area.

Western Plant Society of Oregon funded and conducted plant inventories in three research natural areas. Members of this organization collected and identified nearly 200 plants and described their habitats in eastern Oregon.

New Mexico State University Chapter of the Wildlife Society, over the last two years, built three water units for bighorn sheep, repaired older units, fenced a spring to improve riparian habitat, and

conducted vegetation studies in deer and ibex areas near Las Cruces, New Mexico.

New Mexico Volunteers for the Outdoors contributed over 360 hours of trail work on the Rio Grande Gorge.

Powder River Sportsmen, Vale, Oregon, repaired riparian fence enclosures and improved key winter ranges of deer by planting bitterbrush, a preferred big game forage.

Region VI of the Pacific Northwest 4-Wheel Drive Association, an organization of 16 different clubs from south and central Oregon, contributed over 1,500 hours of labor in the Sand Dunes area of Christmas Valley. Projects included fencing rare plant sites and areas containing fragile fossils and repairing vandalized signs and toilets.

Sportsmen's Council of Central California, Bakersfield, raised \$9,692 from State and local governments, as well as private individuals and groups, so that a 2.4-mile trail, two gates, and a fence alteration could be constructed to provide access into the 58,000-acre Caliente National Cooperative Land and Wildlife Management Area.

BLMers Honored for Volunteer-Related Service

BLM also recognized eight of its own employees and six employee units for their successful initiatives and leadership in 1986 in recruiting and utilizing the contributed services of volunteers. These award winners are:

For "Exemplary" Service

Individuals

Francis Berg, archaeologist for the Ukiah, California District, has led a series of volunteer work-education projects through which 150 college students, faculty members, and citizens have recovered and conserved artifacts from endangered prehistoric sites in the King Range National Conservation Area and elsewhere along the northern California coast. The shoreline sites are being damaged by erosion due to winter storms and wave action. The four-week summer projects provide unusual educational benefits to the students, including evening seminars led by visiting senior archaeologists after the day's digging is done. Over the last three years these work-and-learn projects and related work have attracted approximately 12,000 volunteer work-hours.

Craig Sorenson, outdoor recreation planner, Rawlins, Wyoming District, solicited and guided volunteers for recreation work in the Lander Resource Area. He has supervised a Green Thumb worker for eight years, set up a group of high school students to work on recreation and wildlife projects, originated an alternative sentencing program, and started a project involving prison farm inmate crews to work on various projects.

Richard Speegle, outdoor recreation planner for the Taos Resource Area in New Mexico, attracted volunteers into the recreation program, netting over \$56,000 in equivalent value to the Government, and helped establish a Volunteers for the Outdoors chapter in Taos.

Stephen P. Walker, a heavy-equipment operator in Oregon's Roseburg District, initiated an annual community-wide clean-up of the banks of the North Umpqua River. Some 300 volunteers from 25 community interest groups, along with BLM and U.S. Forest Service employees, each year remove more than 20 tons of litter from the banks of the river. Mr. Walker's work on the river cleanup project has been on his own time and unrelated to his BLM job.

Catherine H. Yates, archaeologist for the Tulsa District in Oklahoma, recruited Native American volunteers to gather information on cultural resources, sacred site locations, burial areas, and historic settlements in the Oklahoma Resource Area.

BLM UNITS

Multi-Resources Staff of the Las Cruces/Lordsburg Resource Area, New Mexico, has marshalled an estimated 8,000 hours of work by volunteers over the last three years, including Boy Scouts working on the annual Project SOAR (Save Our American Resources) and supervising other Scouts to earn Eagle Scout rank; members of the Las Cruces and El Paso Chapters of the Sierra Club monitoring wilderness study areas; and New Mexico State University students helping to build seven catchments for desert bighorn sheep.

Ukiah District, California, during the last five years has attracted more than 1,156 volunteers who have donated 145,505 hours (70 work-years) valued at \$1.08 million in support of the district's resource management programs. The district has a diversified volunteer program involving every organizational unit, including three resource areas and four district divi-

sions. Stream clearance and rehabilitation, tree planting, trail maintenance and construction, and other labor-intensive work was accomplished by student interns, class projects, community service court referrals, civic clubs, youth programs, special interest groups, Student Conservation Association, BLM retirees, employees and their families. In Fiscal Year 1986, Ukiah attracted 349 volunteers who contributed 34,615 hours of service.

Yuma District, Arizona, during 1986, utilized 174 volunteers who contributed 50,126 work-hours (approximately 28 work-years). Its volunteer work-years as a percentage of employee work-years was 45.65 percent, highest in BLM. Campground hosts assisted visitors and performed maintenance chores. Volunteers publish the "Snowbird Messenger" monthly from November through March for all visitors to Long-Term Visitor Areas. The Yuma District's volunteer training program and supplemental volunteer manual have also been used by other BLM districts.

FOR "OUTSTANDING" SERVICE

INDIVIDUALS

Phil Detrich and Bob Lehman, wildlife biologists at California State Office, recruited volunteers for the two-year Cache Creek Wintering Bald Eagle Study near Ukiah, California. They collected data upon which to base a biological recommendation for routing a geothermal power line. The volunteer labor totalled 3,640 hours with an estimated value exceeding \$25,000.

Douglas Dodge, Salt Lake District archaeologist, during the past three years developed an archaeological internship-volunteer program, which began with two Utah universities and local high schools and has expanded its recruiting to 11 Western universities. He also coordinated similar work on three major projects: two interstate fiber-optic cable proposals and the Great Salt Lake Pumping Project.

BLM UNITS

Caliente Mountain Trail Project Team, Caliente Resource Area, Bakersfield District, sought financial support (approximately \$10,000) from the Sportsmen's Council of Central California to construct a foot and equestrian trail on an existing easement. In addition to securing contributed funding, the Project Team's volunteer-related work included survey support, trail layout, administrative support, and actual on-site

supervision of labor crews. As a result of their volunteer-related work, the 2.4-mile trail through rugged terrain was completed one year before it was originally planned to have begun.

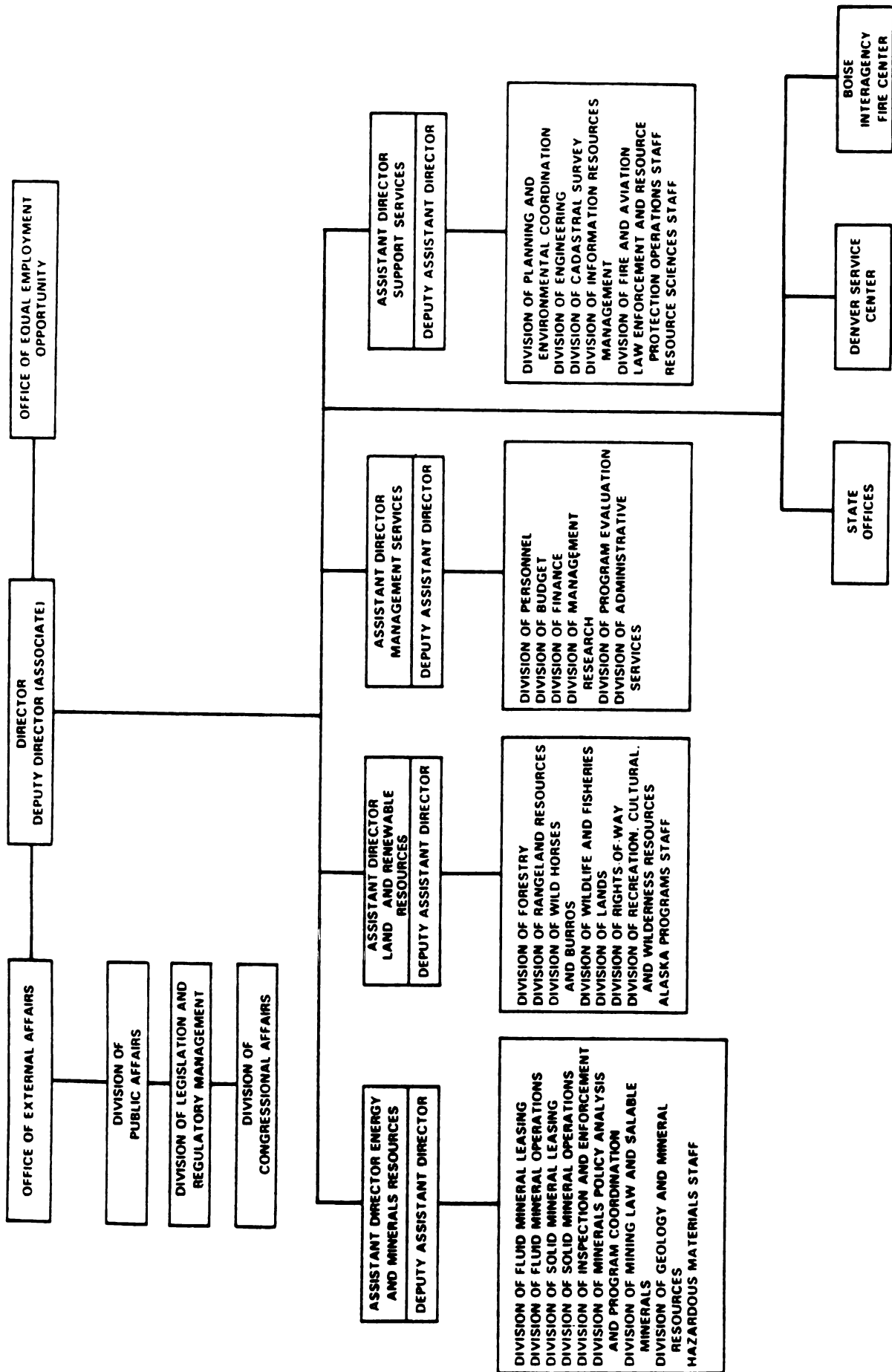
San Juan Resource Area, Montrose District, Colorado, attracted 4,731 hours of volunteer time during 1986, with 132 volunteers contributing services valued at \$28,850. Volunteers have provided a large variety of services including: cleaning up at recreation areas and along the Dolores River; fencing a newly-designated research natural area to protect endangered reptiles; managing collections and packing materials for the Anasazi Heritage Center; handling permits, special volunteer days, and daily operations at the Center's lab; inventorying and stabilizing cultural resource sites; installing a guzzler for wildlife; and gathering fuelwood for senior citizens. The volunteers included Boy Scouts, college students, members of environmental groups, amateur archaeologists, and senior citizens.

Taos Resource Area, Albuquerque District, New Mexico, has expanded its volunteer program from involvement of one resource program to four resource programs plus administration, and from 48 volunteers in 1984 to 198 volunteers in 1986. Over this four-year period, the resource area has involved 462 volunteers who have contributed 13,112 volunteer hours for an estimated \$192,523 worth of work accomplished at a cost to BLM of \$33,015. Volunteers were particularly helpful in the outdoor recreation work of the resource area. Given the relative remoteness of the Taos Resource Area from populated areas, the accomplishments of the resource staff are particularly noteworthy.

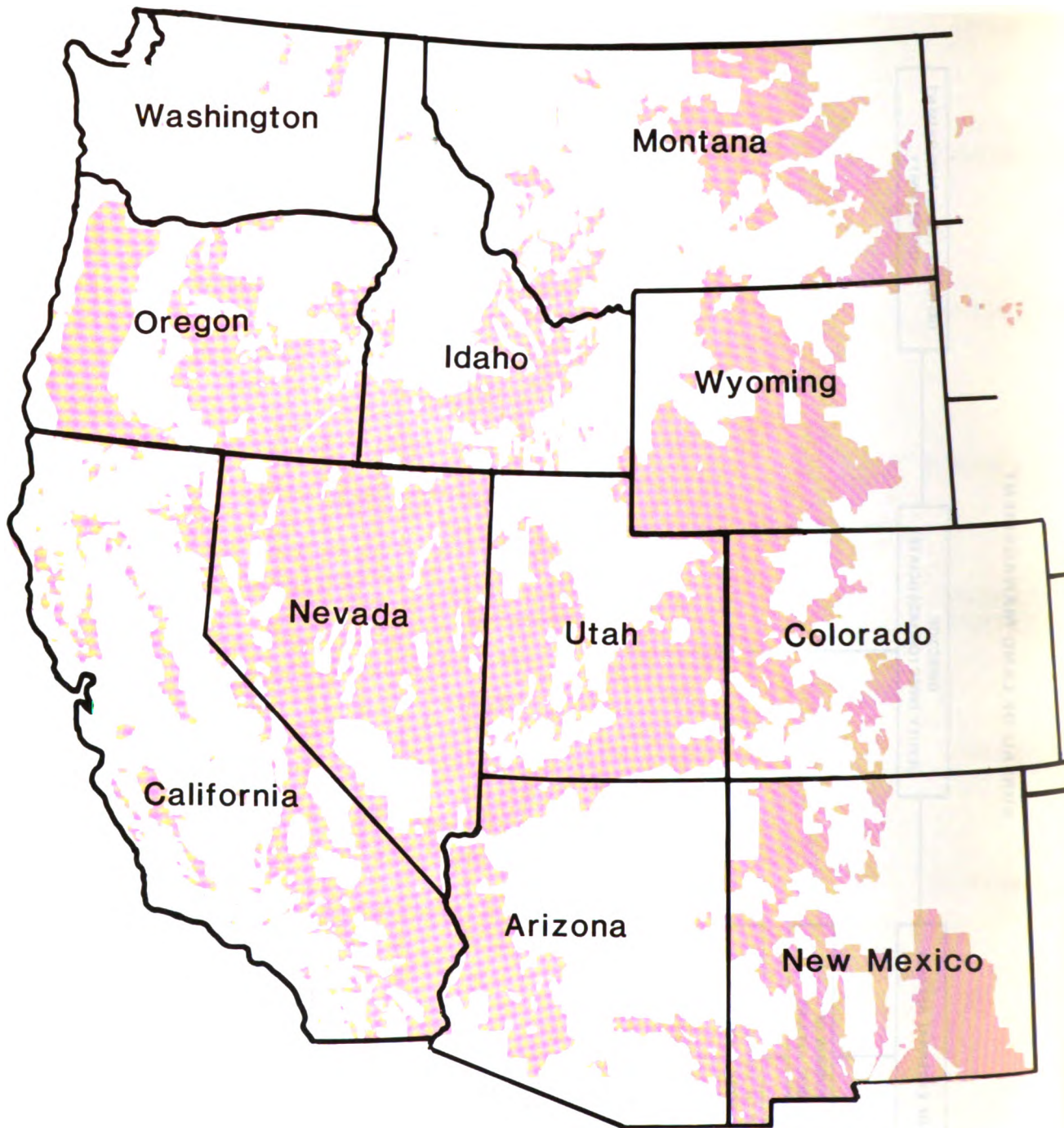
APPENDIX B

BLM ORGANIZATION

BUREAU OF LAND MANAGEMENT



PUBLIC LANDS IN THE WESTERN STATES



Legend

 LANDS MANAGED BY BLM



U.S. Department of the Interior
Bureau of Land Management

STATE OFFICES

ALASKA: 701 C Street, Box 13
Anchorage, AK 99513
Michael Penfold, State Director
(907) 271-5555

ARIZONA: 3707 N. 7th Street
P.O. Box 16563
Phoenix, AZ 85011
Dean Bibbes, State Director
(602) 241-5504

CALIFORNIA: Federal Building
2800 Cottage Way, E-2841
Sacramento, CA 95825
Ed Hastey, State Director
(916) 978-4746

COLORADO: 2850 Youngfield Street
Lakewood, CO 80215
Neil Morck, State Director
(303) 236-1700

**EASTERN
STATES:** 350 S. Pickett Street
Alexandria, VA 22304
Curtis Jones, Director
(703) 274-0190

IDAHO: 3380 Americana Terrace
Boise, ID 83706
Del Vail, State Director
(208) 334-1771

MONTANA: 222 N. 32nd Street
P.O. Box 36800
Billings, MT 59107
Marvin LeNoue, Acting State Director
(406) 657-6561

NEVADA: Federal Building
300 Booth Street
P.O. Box 12000
Reno, NV 89520
Ed Spang, State Director
(702) 784-5311

**NEW
MEXICO:** Joseph M. Montoya Federal Bldg.
South Federal Place
P.O. Box 1449
Santa Fe, NM 87504
Larry Woodard, State Director
(505) 988-6316

OREGON: 825 NE Multnomah Street
P.O. Box 2965
Portland, OR 97208
Charles Luscher, State Director
(503) 231-6277

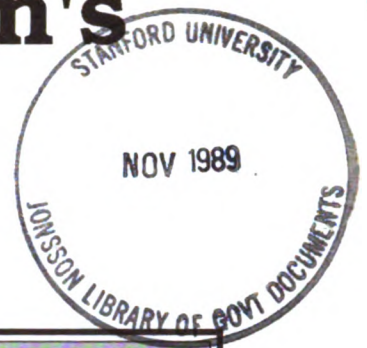
UTAH: 324 South State Street
Salt Lake City, UT 84111
Roland Robison, State Director
(801) 524-3146

WYOMING: 2515 Warren Avenue
P.O. Box 1828
Cheyenne, WY 82003
Hillary Oden, State Director
(307) 772-2111



DEPOSIT
JAN 22 1988
SHIPPED

Managing the Nation's Public Lands Fiscal Year 1987



BLM MISSION STATEMENT

The Bureau of Land Management is responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield—a combination of uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural scenic, scientific and cultural values.

In 1986, the Bureau of Land Management celebrated its 40th anniversary as a public land management agency and the 10th anniversary of the Federal Land Policy and Management Act, the agency's primary legislative mandate for managing the public lands.



This report to the Congress of the United States on the management of the Nation's public lands is submitted pursuant to requirements of the Federal Land Policy and Management Act of 1976 and covers the period from October 1, 1986, through September 30, 1987.

"It is not necessarily those lands which are the most fertile or most favoured in climate that seem to me the happiest, but those in which a long struggle of adaptation between man and his environment has brought out the best qualities of both."

T.S. ELIOT

Managing the Nation's Public Lands Fiscal Year 1987

roduction	1
anawide Initiatives	4
anning	4
as of Critical Environmental Concern	4
tomated Land and Mineral Record System	4
arian Area Management	5
ardous Materials Management	6
gy and Mineral Programs	7
and Gas Management	7
othermal Management	8
al Management	8
Shale Management	10
eral Material Management	11
Programs	13
ds	13
ska Lands	14
hts-of-Way	14
quisition	14
reation Management	15
tural Resource Management	16
ural History Resource Management	16
dermess Review and Management	17
wable Resource Programs	18
geland Management	18
est Management	20
life and Fisheries Habitat Management	20
d Horse and Burro Management	21
ort Services	24
Enforcement	24
lastral Survey	24
and Aviation Management	25
ineering Services	27
rmation Resources Management	27
nters and Other Contributed Services	28
ral Administration	29
ministrative Services	29
ncial Management	29
agement and Productivity	30
onnel Management	30
cial Management	31
ropriations and Expenditures	31
venues and Receipts	32
e and Local Shares	34
nents in Lieu of Taxes	34
ok Ahead	35
Organizational Chart	40
c Lands in the Western States (Map)	41
State Office Directory	42

Introduction

In the last half of the 18th century and the first half of the 19th century, the United States Government acquired most of the land west of the Appalachian Mountains, eventually owning more than 1.5 billion acres of public domain—lands which had never been in private ownership. Although the Federal Government has since disposed of most of this acreage to private citizens, the Federal, State, and local governments, some of the public domain lands were dedicated to establish the National Parks, National Forests, National Wildlife Refuges, military compounds, and other government facilities. However, approximately 272 million acres—about one-eighth of the Nation—remain today as public lands, which are managed by the Bureau of Land Management (BLM) for multiple uses. In addition, BLM also manages the mineral estate underlying another 300 million acres of lands administered or owned by other agencies or private interests. Most of this acreage is located in the Western States, including Alaska, although small parcels are scattered across the Eastern States.

In 1812, Congress established the General Land Office to administer the public domain, with the primary purpose of passing public domain lands into private ownership. The passage of the Taylor Grazing Act in 1933 and establishment of the U.S. Grazing Service provided for active range management on the public domain, but this was seen as interim management of lands pending their final disposal into non-federal ownership.

In 1946, the Presidential Reorganization Plan No. 2 reorganized the Grazing Service with the General Land Office to create the Bureau of Land Management within the Department of the Interior. BLM became responsible for managing all the resources on the Nation's public lands; however, with more than 2,000 overlapping and often conflicting laws pertaining to the

public domain, the agency had no unified legislative authority to manage those lands.

When Congress enacted the Federal Land Policy and Management Act of 1976 (FLPMA), it established a coherent legislative mandate for managing the public lands and made BLM a true multiple-use agency. The law recognized that the public lands are a national asset, providing goods, services, and vast natural resources for millions of Americans:

" . . . Congress declares that it is the policy of the United States that . . .

"the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use . . .

"the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands . . ."

(FLPMA, Section 102[a][8] and 101[a][12])

FLPMA provides a clear-cut policy that most public lands are to be retained in Federal ownership and managed by BLM under a concept of multiple use for all Americans, with the full participation of the public and a careful balancing of the interests of competing users. Today BLM manages a multitude of assets for the American public:

- about 1.4 billion barrels of proven oil reserves;
- approximately 12.5 trillion cubic feet of proven natural gas reserves;
- 10 million animal-unit months of forage to support about 4.3 million head of domestic livestock;



- the major portion of the undiscovered but geologically predictable domestic deposits of aluminum, antimony, beryllium, bismuth, cadmium, chromium, cobalt, copper, fluorspar, lead, manganese, mercury, molybdenum, nickel, platinum group metals, silver, tungsten, and vanadium;
- almost 8 million acres of commercial forest land with a producing capacity of about 1.4 billion board feet each year;
- about 80 percent of the Nation's oil shale;
- more than 200 designated areas of critical environmental concern;
- all 11 of the Nation's major tar sand sites;
- thousands of unique recreational areas, including 15 Wild and Scenic Rivers, 21 National Trails, almost 1,500 recreation sites, 65,000 miles of roads suitable for recreation travel, more than 4 million acres of lakes and reservoirs, and thousands of areas open to a wide variety of recreational uses;
- in the Western States alone, about one-third of the Nation's total coal supply, plus substantial eastern coal reserves;
- approximately 370,000 acres of designated wilderness and more than 25 million acres under study for possible designation;
- some 35 percent of the Nation's uranium reserves;
- more than 350 archaeological and historical sites recorded in the National Register of Historic Places and more than 1,200 properties considered to have nationally significant values;
- world class deposits of phosphate, sodium, lead, zinc, and potash;
- habitat for one out of every five big game animals in the United States, including many caribou, brown and grizzly bears, desert bighorn sheep, moose, mule deer, and antelope;
- nearly 85,000 miles of streams containing trout, salmon, and other sport fish—enough to encircle the Earth three and one-half times;
- prospective sources of geothermal energy on more than 55 million acres, plus 2 million acres of known geothermal resource areas;
- approximately 96 percent of all wild horses and burros managed, protected, and controlled under the Wild Free-Roaming Horse and Burro Act of 1971.

The magnitude and value of these resources frequently lead to conflicting demands and uses for the public lands. The FLPMA mandate for multiple-use management is BLM's most powerful tool for reconciling the differences of opinion about how the public lands are to be managed. Multiple-use facilitates the development of needed resources, while protecting



Cadastral crews resurvey lands to determine federal boundaries.

other resource values from inadvertent damage or destruction. Through a planning, decisionmaking, and management process that balances alternative uses and involves the public at all steps, BLM can provide opportunities for many different uses of the public lands and ensure that its many resources will remain available to the public in the future.

A stellar example of effective multiple-use management on the public lands is the California Desert Conservation Area, which was established by Congress through FLPMA. As required by FLPMA, BLM prepared and, in 1980, began to implement a comprehensive plan to manage the public lands within the area. The plan is a prime example of cooperation between the Federal Government and the citizens of the United States, who together identified the multiple uses of the desert and developed the framework for managing those uses.

For the last six years the California Desert Plan has served as a blueprint for balancing the public's rights, privileges and needs on the public lands and the many significant resource values of the California Desert Conservation Area. Through this plan, BLM is able to maintain the public's opportunities to enjoy and use the public lands of the California Desert, whether for outdoor recreation, mineral production, or livestock grazing.

As President Ronald Reagan noted in 1986, on the 10th anniversary of establishment of the California Desert Conservation Area, "Recognizing both the needs of the people and the need to preserve natural resources, the California Desert Plan was developed through both innovation and active citizen involvement. Those who

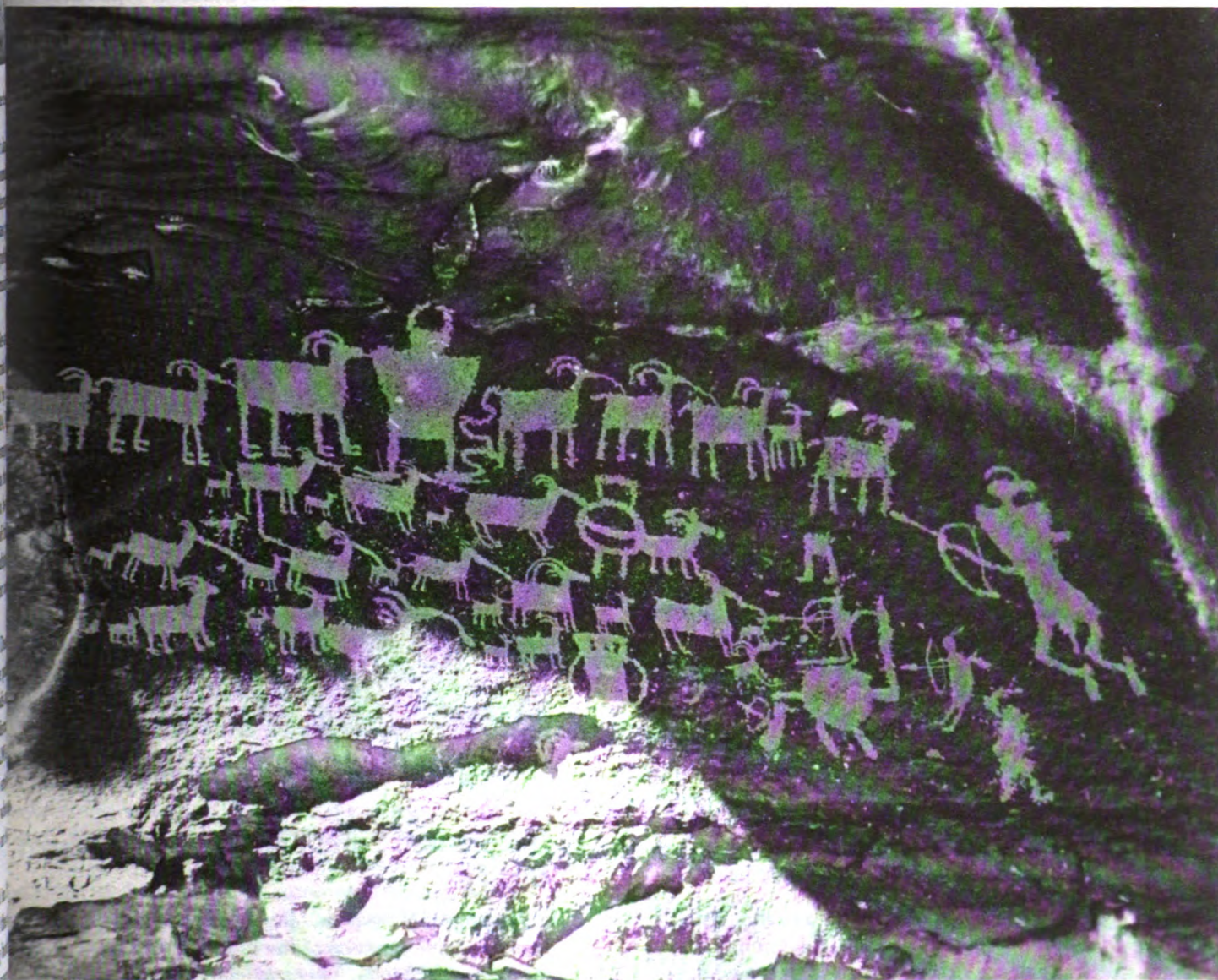
veloped the Desert Plan were dedicated to multiple
of our public lands and sustained yields and were
to develop an effective framework which balances
sources, use, development and protection. As a
ult, management of this area serves as model for all
lic lands."

s in the California Desert Conservation Area, BLM
ages all the Nation's public lands to meet the needs
desires of the American public. And as with the
ifornia Desert Plan, American citizens can play a
cal part in public land management—today and
the future.

ective involvement in planning, managing, and car-
for the public lands is a positive way to participate
resident Reagan's Take Pride in America
paign—a national public awareness campaign to

encourage everyone to take pride in the Nation's natu-
ral and cultural resources. How Americans deal with
the public lands today and tomorrow will determine
what those lands will offer on BLM's 50th, 80th and
100th birthdays. BLM encourages all citizens to learn
more about public lands, to become involved in their
management, and to enjoy those lands.

The following pages provide an overview of public
land management during Fiscal Year 1987, and of the
issues and initiatives BLM faces during Fiscal Year
1988. For additional perspective, the major legislative
mandates affecting BLM programs, in particular
FLPMA, are also briefly discussed. Additional informa-
tion about BLM and the public lands is available in the
BLM headquarters offices or local BLM offices.



BLM manages cultural resources, such as these petroglyphs, on public land.

Bureauwide Initiatives

Planning

FLPMA, enacted in 1976, specifically required the development and maintenance of land use plans for the public lands, placing special emphasis on public participation. In 1979, planning regulations were issued establishing resource management plans as the basic planning document. Other legislation containing planning requirements include the National Environmental Policy Act of 1969, the Federal Coal Leasing Amendments Act of 1976, the Surface Mining Control and Reclamation Act of 1977, and the Public Rangelands Improvement Act of 1978.

Planning helps the local manager, public land users, and others resolve resource management conflicts and land use issues. BLM seeks to improve resource management decisions on the public lands through a planning process that includes participation by the public and Federal, State, and local governments; use of the best available data; and analysis of alternatives. Resource management plans are designed to guide and control management actions relating to the increasingly competitive demands for public lands, while at the same time protecting and ensuring their long-term productivity.

Forty-four resource management plans had been approved by the end of Fiscal Year 1987. An additional eight plans were in final form and awaiting State Director approval, while nine plans were in draft form and available for public review. With more than 60 plans completed, BLM is placing increased emphasis on plan implementation, monitoring, and maintenance. In Fiscal Year 1987, the Phoenix Training Center continued to offer the "Using the Plan" training course. BLM also started plans for nonmilitary uses for four military withdrawals that were extended by Congress in 1986.

Also in Fiscal Year 1987, BLM issued final resource program specific planning guidance. This guidance supplements the basic planning guidance. It is designed to improve the content, program coverage, and comparability of future resource management plans and amendments. Guidance was issued for 26 programs and for social and economic analysis.

The BLM and the National Park Service completed a Memorandum of Understanding to coordinate planning and reduce conflicts.

Areas of Critical Environmental Concern

FLPMA requires that BLM give priority to the designation and protection of areas of critical environmental concern. Such areas are designated to protect and prevent irreparable damage to important historic, cultural,

or scenic values; fish and wildlife resources or other natural systems or processes; or to identify natural hazards. Natural areas may also be designated under FLPMA to maintain natural diversity and facilitate scientific research.

Areas of critical environmental concern and natural areas are identified through BLM's planning process. Management prescriptions for each area are also identified and tailored to reflect the site-specific resources and local circumstances. Protection of the identified values is ensured whenever subsequent uses are undertaken or authorized.

During Fiscal Year 1987, 25 areas comprising more than 395,000 acres of public land were designated as areas of critical environmental concern. This raised the amount of public land accorded designation to more than 5.1 million acres and reflected BLM's vigorous commitment to the appropriate use of this designation and management authority. Based on public and bureauwide review of proposed revisions, BLM is completing an effort to improve existing guidance for designation and management of areas of critical environmental concern.



Recreationists fish blue-ribbon streams administered by BLM.

Automated Land and Mineral Record System

A basic BLM responsibility for the last 200 years has been the maintenance of the land and mineral records for the public lands. These official documents are the basis for the legal authorizations to use the public



A hydrologist checks a rain gauge at a soil and range monitoring site.

, including thousands of applications annually for oil and gas leases and rights-of-way. BLM is now automating access to the information on these records, replacing hand-drawn plats and procedures that in some offices date back to the beginning of the country.

The demand for use of the public lands continues to grow and has exceeded the capacity of the manual methods and procedures used for so many years. This was demonstrated graphically when oil and gas lease applications quadrupled in the energy boom of 1981-82 and overwhelmed the paper system, just when the national need most required efficient processing of applications for use of domestic oil and gas resources.

Implementing the Automated Land and Mineral Record System is a major effort; BLM maintains more than 250,000 cubic feet of records (1 billion documents per acre). When fully implemented in Fiscal Years 1993, the system will automate much of the case processing and will greatly improve responses to public inquiries about the availability of public lands for particular purposes, including the filing of mining claims.

The Automated Land and Mineral Record System was identified as one of 17 Presidential Priority Systems in Fiscal Year 1987, reflecting the national significance of implementing it. Because the system will significantly increase efficiency by implementing modern business practices in BLM, it is a cost-effective investment. Benefits total over \$850 million through the system's life cycle, with the costs being approximately \$1 billion to implement an automated system rather than perpetuate the paper-based operations. The transition to automation would involve retracing tens of thousands of plats, which alone would cost \$30 million and provide no greater efficiency when that is clearly the case.

During Fiscal Year 1987, BLM largely completed the definition of its functional requirements for automating the records management process. This is a critical accomplishment, since BLM plans to obtain the computer capabilities through a competitive procurement planned for issuance in Fiscal Year 1989, and vendors will have to know in some detail what capabilities are required.

In late Fiscal Year 1987, after detailed discussions with the vendor community, BLM adopted a procurement strategy to "bundle" into one contract the purchase of hardware and software for the Automated Land and Mineral Record System. The strategy will increase the potential efficiency of the system. Emphasis on data administration was increased in Fiscal Year 1987 to ensure a verified data base would be operational when the software and hardware were completed.

BLM is relying upon standard, proven analytical approaches to developing automated systems: first the needs are well-documented, and then alternative management choices are made through the life cycle management process. To ensure the analysis matches the real needs of various offices, BLM also uses a prototype of portions of the planned system and is piloting computerized applications and data base operations in field offices in New Mexico.

While the delivery of operational computers in every BLM office for the Automated Land and Mineral Record System is still several years away, BLM has already created an automated data base of legal land descriptions (based on the cadastral surveys) for nearly all the Western States. It has also completed automating the land status in Alaska, New Mexico, and Arizona. BLM has initiated similar data collection efforts in Montana, Idaho, Utah, and Nevada; because of the quantity of data to be automated, collection of status data requires several years. Contracts for automating status data for Oregon, California, Colorado, and Washington were prepared in Fiscal Year 1987, with completion scheduled in Fiscal Year 1991.

Riparian Area Management

Riparian areas are among the most productive and important ecosystems, displaying a unique diversity of plant and wildlife species and vegetation structure. These areas comprise less than one percent of the 272 million acres of public lands managed by the BLM and vary greatly in their nature and character.

In Fiscal Year 1987, BLM issued a Riparian Area Management Policy that stresses the interdisciplinary, multi-resource character of riparian area management. This means that all programs—range, watershed, forestry, lands, minerals, etc.—share the responsibility of

ensuring that the basic riparian area components of soil, water, and vegetation are taken into consideration when conducting program activities. The policy also serves as guidance to field managers on how to maintain, protect, and improve riparian areas. Several BLM State Offices have developed supplemental riparian policies and all States have prepared riparian management strategies.

The BLM Riparian Task Force Reports have been completed. They provide technical guidance to the field for riparian area classification, inventory, monitoring, and management.

There has been increased "riparian consciousness" among BLM resource specialists and managers and public land users through BLM-sponsored workshops and tours. Public information materials on riparian management, including fact sheets, videos, slide shows, and displays, have been distributed to field offices.

To illustrate the enhancement of riparian areas, each BLM district has established at least one riparian demonstration area, where the best management practices and instream habitat improvement work have been or will be implemented. These areas will demonstrate the benefits and resiliency of riparian systems to BLM resource specialists and managers, livestock operators, conservation groups, and other public land users.

During Fiscal Year 1987, a national cooperative agreement on riparian restoration and the use of volunteers was initiated by BLM, Forest Service, Izaak Walton League of America, and others.

Hazardous Materials Management

Hazardous materials management is a program that affects many other BLM programs, including lands; minerals; forestry; range; soil, water, and air; engineering; and resource protection. The program is based on the requirement for compliance with the Resource Con-

servation and Recovery Act, as amended, which regulates treatment, storage, and disposal of hazardous wastes; the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, which regulates cleanup of spills and abandoned waste sites; and many other Federal and State laws that regulate the management of hazardous materials.

The goals of the program include:

- Protection of the health and safety of the public, Federal land users, neighbors, and BLM employees, as well as protection of the environment and natural resources;
- Compliance with applicable Federal and State laws, regulations, and orders, within the context of BLM's statutory mission as a Federal natural resource manager; and
- Cleaning up past problems, controlling current problems, and minimizing future problems of hazardous materials on public lands in a cost-effective manner.

During Fiscal Year 1987, program activities for hazardous materials management continued in all BLM State Offices. Field officials were involved in 33 hazardous waste cleanups on the public lands.

Other significant accomplishments included conducting 87 land status assessments; conducting inventories to identify, or confirm the presence of, hazardous wastes on public lands; providing safety training and material for field staff; working with the States to initiate further studies of appropriate sites; providing extensive policy, technical, and program assistance and support to other BLM program divisions on the hazardous materials aspects of their programs; and developing a strategy for eliminating the backlog of sites requiring assessment and investigative analysis.

Issues yet to be resolved include the questions of the most effective means for cleanup of toxic or hazardous sites on Federal lands, improved communications and coordination, and funding.

A BLM geologist checks the quality of bentonite at a BLM bentonite lab.



Energy and Minerals Programs

Oil and Gas Management

Oil and Gas Leasing

The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947, as amended, give BLM responsibility for oil and gas leasing on about 600 million acres of public lands and national forests, and private lands where mineral rights have been retained by the Federal Government. Both competitive and noncompetitive oil and gas leasing are authorized by the Acts.

Table 1 FY 87 Oil and Gas Leases Issued		
	Leases Issued	Acreage Leased
Competitive	1,000	232,000
Noncompetitive:		
Over-the-Counter	500	1,100,000
Simultaneous	5,700	6,100,000
Total	7,200	7,400,000
Leases in Effect As of 9/30/87:		
	88,700	72,000,000

Oil and gas leasing remained at unusually low levels in 1987. As in 1986, the number of lease terminations, relinquishments, and expirations during the year was less than the number of new leases issued. By the end of Fiscal Year 1987, there were 15 percent fewer leases under lease than at the beginning of the year. As a result of a market analysis prepared by BLM, together with the low level of interest expressed by industry, BLM decided not to hold a lease sale in 1987 for the National Petroleum Reserve, Alaska (NPR-A). This was similar decisions for the same reasons in 1985 and 1986.

Oil and Gas Operations

BLM is responsible for inspecting drilling and production operations on Federal leases to ensure compliance with regulations for production, storage, measurement, transportation or sale of oil and gas from Federal onshore and Indian leases.

As of September 30, 1987, there were approximately 100 producible completions, that is, wells demonstrated capable of producing oil or gas in paying quantities, on Federal onshore and Indian leases. During Fiscal Year 87, there were 1,112 producible wells completed.

During Fiscal Year 1987, onshore oil and gas leases generated about \$625 million in bonus, rent, and roy-

alty payments to the Federal Government. Fifty percent (or, in the case of Alaska, 90 percent) of this revenue is returned to the States where production occurs. Another Interior agency, the Minerals Management Service, collects and distributes these receipts.

The most significant event in administering oil and gas operations on Federal leases this fiscal year was the issuance of final regulations to implement the Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA). These regulations went into effect April 20, 1987, and provide new definitions for "knowing and willfully" and "major violation;" eliminate the complex penalty formula; limit automatic assessments; and modify administrative review and other procedures.

In addition to the new regulations, BLM is developing a series of nine Onshore Oil and Gas Orders to provide minimum acceptable standard for oil and gas operations. Order No. 1, Approval of Drilling Operations, was completed in 1983. Orders concerning drilling operations (Order No. 2) and site security (Order No. 3) were published as proposed rulemakings on August 13, 1987, and will be finalized in Fiscal Year 1988.

Section 205 of FOGRMA provides that the Secretary of the Interior may delegate all or part of his authority for inspection and investigations of oil and gas lease sites to State governments. The regulations for delegations of authority went into effect August 17, 1987. A couple of States have expressed interest, but no agreements have been established.

Section 202 of FOGRMA provides for cooperative agreements with Indian tribes to perform inspection and investigation functions on Indian leases. During Fiscal Year 1987, trainees from the Southern Ute, Ute, Northern Ute, Navajo, and Jicarilla-Apache attended courses in BLM's inspector training program. BLM also provided opportunities for trainees from other Federal agencies and States whenever they could be accommodated.

The low oil price situation that began in 1986 continued through 1987, with some moderate improvement during the second half of the year. For this reason, BLM extended the suspension of production requirements on stripper/marginal well leases for another year, to prevent premature abandonment of oil and gas resources. As of September 30, 1987, there were 350 such leases in suspension, representing about 1.5 percent of the producible Federal leases.

BLM continued its aggressive program to identify all wells that are potentially draining Federal resources. A Drainage Policy Review Team was established, and its recommendations are currently being implemented. BLM also continued its efforts to automate drainage identification. The computer-based Potential Drainage Detection System (PDDS) is being improved and enhanced for broader use in BLM.

Geothermal Management

Geothermal Leasing

The Geothermal Steam Act of 1970 provides BLM authority to issue leases on public, withdrawn, and acquired lands administered by the Department of the Interior and Agriculture.

BLM conducts competitive geothermal lease sales for land located in Known Geothermal Resource Areas. However, no competitive leases were issued this year because of a moratorium placed on leasing by the Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1987. After the moratorium was lifted on June 30, 1987, a geothermal sale was held in Nevada on September 24, 1987. Bids were received for ten leases, but leases were not issued until fiscal year 1988.

Three leases covering 5,600 acres were issued non-competitively this year. At the end of Fiscal Year 1987, there were 912 geothermal leases in effect covering 1.5 million acres. This is a 25-percent decline in the number of leases and acreage under lease at the beginning of the year.

Geothermal Operations

To date, the geothermal resources developed from Federal leases have been used mainly for electrical generation. At the end of Fiscal Year 1987, a total of 793.3 megawatts was being produced from Federal leases in three Western States. Approximately \$16 million in royalties was received from geothermal production on these leases. As of September 30, 1987, there were 912 geothermal leases in effect on 1.5 million acres in nine Western States.

Table 2
Geothermal Production
From Federal Leases in FY 87

California:		
The Geysers	725	megawatts
East Mesa	20	megawatts
Utah:		
Roosevelt Hot Springs	20	megawatts
Cove Fort	2.3	megawatts
Nevada:		
Beowawe	16	megawatts
Desert Peak	10	megawatts
Total Production		
From Federal Leases	793.3	megawatts

Although, the majority of electrical generation capacity has been in California, Nevada is experiencing a great increase in geothermal development and produc-

tion activities. At the end of the fiscal year, there were two power plants in production, and four power plants and one direct-use facility under construction in Nevada.

Coal Management

Coal Leasing

The Federal Government owns about one-third of the Nation's coal. Approximately 75.6 million acres of coal are owned and administered by the Federal Government, principally in the Western States. These western Federal coal lands contain as much as 60 percent of the total western reserves. The Federal Government also indirectly affects the use of at least an additional 20 percent of the coal in the West. Most of these Federal coal reserves are concentrated in five western Federal coal production regions located in Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming.

BLM serves as the focal point for the Department of the Interior's coal leasing program and is responsible for assuring coordination with State and local governments, industry, conservation groups, and other agencies concerned with the management of Federal coal. The Mineral Lands Leasing Act of 1920, the Federal Coal Leasing Amendments Act of 1976, the Federal Land Policy and Management Act of 1976, and the Surface Mining Control and Reclamation Act of 1977 provide the statutory bases for Federal coal leasing.

Major achievements during Fiscal Year 1987 included implementing the Secretary's February 1986 decisions on revisions to the coal leasing program and completing negotiations with environmental groups over the procedures to be used in processing the remaining coal



Coal seams provide the background as a 170-ton truck hauls coal out of an open-pit coal mine.

ference right lease applications. Program implementation activities included (1) publishing for BLM and public use a manual section and handbook, which provide detailed information on the revised competitive leasing policies and procedures; (2) publishing proposed regulations that would implement the Secretary's decisions on land-use planning and the application of the coal unsuitability criteria; (3) preparing geological data adequacy standards for Federal coal production regions; and (4) drafting for BLM field comment regional-level standards for determining the adequacy of hydrology data.

Departmental officials concluded discussions with several environmental groups concerned about the procedures for processing coal preference right lease applications. The discussions centered around issues related to compliance with relevant environmental statutes and the Department's procedures for determining whether an applicant has discovered coal in commercial quantities. The discussions resulted in the publication of proposed regulations in February 1987 and final regulations in July 1987. These regulations describe improved procedures for public participation and for compliance with the National Environmental Policy Act of 1969 for the remaining 109 coal preference right lease applications.

During the year, two Federal coal lease tracts were approved; they covered 454 acres and contained approximately 3.76 million tons of recoverable coal reserves. Two new leases containing 2,614 acres and approximately 12.53 million tons of recoverable coal reserves were issued.

At the end of Fiscal Year 1987, there were 552 Federal coal leases covering 806,984 acres of Federal lands. In addition to these leases, four prospecting permits, seven mining licenses, 14 exploration licenses, and 109 preference right lease applications were administered by BLM.

Coal Operations

During the 67 years since the Mineral Leasing Act of 1920, more than 1.57 billion tons of coal were produced from Federal lands. The market value of this coal was nearly \$17.8 billion on which royalties exceeding \$1 billion were paid to the U.S. Treasury. Since 1920, more than 370 million tons of coal have been mined from Indian lands. That coal was valued at more than \$4.1 billion, and generated about \$170 million revenue for Indian tribes and allottees.

In Fiscal Year 1987, a record 191 million tons of bituminous and lignite coal were produced from 128 Federal and Indian leases by 65 companies at 79 mines located in eight States. More than 84 percent of the production came from Wyoming, New Mexico,



A bulldozer builds an erosion barrier to reclaim an old mining road and restore the mountain to its natural state.

Montana, and Colorado. The value of the coal produced was a record high \$3.1 billion, an increase of 5.7 percent over the preceding year's total of \$2.9 billion. Royalties derived from coal production were \$172.6 million.

During Fiscal Year 1987, the Department of the Interior approved 18 mining plans, which will enable the lease holders to begin or expand mining operations on leased areas. Also, the Department approved five logical mining units and processed 60 readjustments of lease terms and conditions, three suspensions of operations, and 48 assignments of record title holders on Federal coal leases.

Implementation of the Inspection and Enforcement and Production Verification guidelines for coal and solid minerals in Fiscal Year 1987 included formation of Solid Minerals Assistance Teams to help promote consistency and monitor compliance. The teams visited five field offices during the fiscal year to review mine-specific Inspection and Enforcement and Production Verification plans, inspection procedures, method of production verification, and overall compliance.

Another major accomplishment was the implementation of the Solid Leasable Minerals System Phase II, a computerized data base to track all aspects of lease operations. All producing and nonproducing leases, licenses, and permits are continually monitored through the system to ensure compliance with regulations and lease terms and conditions.

BLM performed Technical Procedures Reviews of the Solid Leasable Minerals System in Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming to determine how well these States were maintaining the data in the system. A nationwide quality control program for the current Solid Leasable Minerals System database

was implemented. Additionally, a life cycle management process began to replace or improve the current system.

BLM conducted Technical Procedures Reviews of the recoverable coal reserve verification project in Colorado, Montana, New Mexico, Utah, and Wyoming. Results confirmed the validity of the project and helped to instill a better understanding of coal operations issues in every State.

Regulations implementing Section 3 of the Federal Coal Leasing Amendments Act of 1976 were published December 5, 1986. The regulations relate to Section 2(a) (2) (A) of the Mineral Leasing Act of 1920, which prohibits the issuance of any onshore Federal mineral lease to any entity that holds, and has held for 10 years, a Federal coal lease that is not producing in commercial quantities. Lessee compliance with Section 3 of the Federal Coal Leasing Amendments Act is monitored weekly as a cross-check against self-certification statements that are submitted to BLM as part of lessee qualifications.

Guidelines for processing an application for suspension of a solid mineral lease were issued on June 15, 1987. The guidelines address three types of suspensions for Federal solid mineral leases:

1. Suspension of operations and production in the interest of conservation under Section 39 of the Mineral Leasing Act, which suspends beneficial use of a coal or other solid mineral lease, as well as payment obligations for rent and minimum royalty or other production requirements;

2. Suspension of operations where a lease cannot be operated except at a loss (only applicable to solid mineral leases or coal leases not yet subject to the Federal Coal Leasing Amendments Act; suspends beneficial use of the leasehold as well as minimum royalty and minimum production requirements); and

3. Suspension due to strikes, the elements, or casualties not attributable to the lessee (force majeure), which suspends minimum royalty or other production requirements, including those of the Federal Coal Leasing Amendments Act (beneficial use of the leasehold is not suspended and the lessee continues to be responsible for the payments of rent and royalty).

Oil Shale Management

Oil Shale Leasing

The Mineral Leasing Act of 1920 gave the Secretary of the Interior the authority to lease oil shale on Federal lands. BLM has the Federal management responsibility for 80 percent of the oil shale resource concentrated in the Green River formation in Colorado, Utah, and Wy-

oming. The reserves in this 25,000-square-mile formation are estimated to contain nearly 2 trillion barrels of shale oil. Approximately 731 billion barrels of oil could be recovered with current technology. However, given present technology, the cost of extracting the oil makes it noncompetitive against conventional energy source.

The only two existing oil shale leases (tracts C-a and C-b in Colorado) are in suspension. The lessees will maintain the mines and related facilities and will monitor the environmental effects while the leases are inactive. Advance royalty payments are not required while the leases are in suspension.

An environmental impact statement was completed to allow for the offering of an off-site lease for the disposal of overburden and spent shale should the C-a lease be developed in the future.

Oil Shale Mining Claims

Great progress was made in the final resolution of litigation involving oil shale mining claims, which has been ongoing since 1920. As a result of a settlement agreement, 82,000 acres of oil shale lands were patented, with the government retaining the rights to oil, gas, and coal. The patents also included the stipulation that the land will not be developed for non-oil shale purposes for at least 20 years.

Nonenergy Minerals Management

Exploration for locatable metallic minerals on public lands dates back to the Mining Act of 1866, the Placer Mining Act of 1870, and the General Mining Law of 1872. The Mineral Leasing Act of 1920, as amended, and the Acquired Lands Leasing Act of 1947, as amended, authorized the leasing of public lands for private extraction of specific leasable minerals as well as oil, gas, and coal. The Act of August 13, 1954, amended the general mining laws and the leasing laws to permit multiple development of both locatable and leasable minerals on the same tracts of land.

Nonenergy leasable minerals include phosphate, potassium, sodium, sulphur, native asphalt, and gilsonite on public domain and all minerals on acquired land. The nonenergy hardrock or locatable minerals are mostly metallic minerals, such as gold, silver, lead, zinc, copper, and tungsten.

Leasable Solid Minerals

BLM supervises activities of lessees and permittees who explore, develop, and produce solid minerals on Federal and Indian lands. During Fiscal Year 1987, there were 496 Federal and 159 Indian leases comprising 533,168 acres, plus 262 prospecting permits cover-

one million acres. Nearly 86 percent of the acreage 70 percent of the leases involve the following three minerals: (1) potash, 163 leases containing 220,997 acres in New Mexico, Utah, and California; (2) phosphate, 188 leases covering 96,037 acres in Idaho, Montana, Utah, Wyoming, California, and Florida; and (3) coal, 107 leases with 141,355 acres in Wyoming, California, Nevada, Colorado, and New Mexico. Other leases are listed in descending order of acreage: lead-zinc-copper in Missouri; copper in Arizona and Minnesota; sand and gravel in Oklahoma, New Mexico, Nevada, Arizona, California, Washington, Wyoming, Oregon and Montana; gilsonite in Utah, fluorapatite in Illinois; limestone in Oklahoma, Virginia and New Mexico; silica sand in Arizona, Nevada, Oklahoma, and California; clay in Missouri and Alabama; oil in California and New Mexico; gold in Idaho and Washington; chat in Oklahoma; quartz crystals in Minnesota; taconite in Minnesota; bentonite in Wyoming; amethyst in Georgia; barite in Arkansas; iron ore in Minnesota; wavelite in Arkansas; olivine in North Carolina; feldspar in Georgia; granite in Oklahoma; sandstone in Washington; garnet in Idaho; and diamonds in Arkansas.

Combined production of 17 nonenergy mineral commodities on Federal and Indian lands in Fiscal Year 1987 contributed \$520 million to the country's gross mineral product and brought \$25 million in royalty income to the Federal Government. About 50 percent of the Nation's potash was produced from 32 leases in New Mexico, California, and Utah, with a production value of \$65 million. Approximately 46 percent of soda ash compounds, mostly soda ash, produced in the United States came from 16 leases in Wyoming, California, and New Mexico; the production has a value of \$226

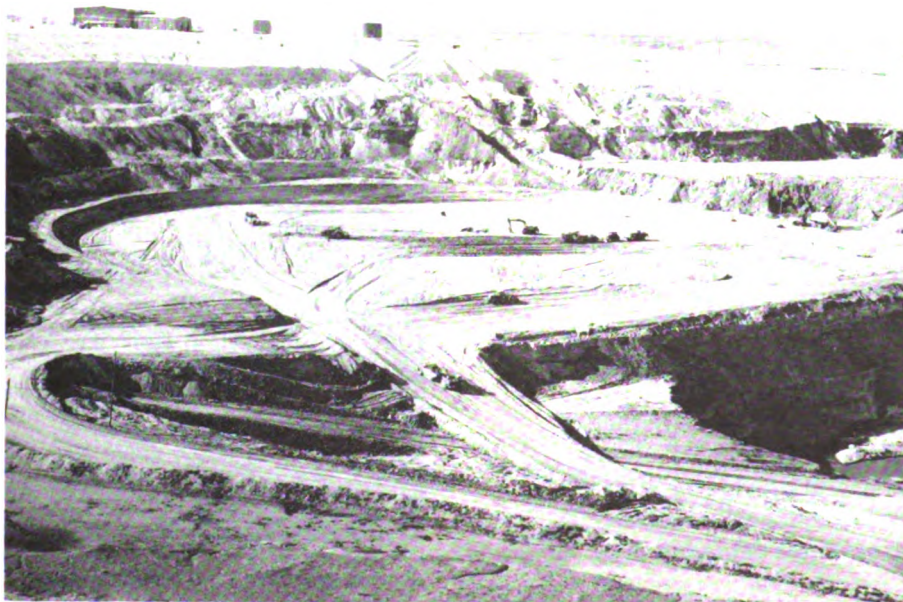
million. About 70 percent of the Nation's lead was produced from leases in Missouri and was valued at \$92 million.

Phosphate production from 15 leases in Idaho, Montana, and Florida was valued at \$41 million. Zinc recovered from lead mining and processing operations in Missouri was valued at \$14 million. Copper was produced from one lease in Arizona and recovered from lead-zinc concentrates produced in Missouri; the value was \$21 million. Other mineral commodities produced from Federal and Indian lands are listed in descending order of value produced: sand and gravel, fluorspar, silica sand, quartz, gilsonite, bentonite, iron ore, gypsum, chat, quartz crystals, and clay.

Mineral Material Management

BLM's mineral material program, sometimes referred to as the "salable minerals program," began with the passage of the Materials Act of July 31, 1949. In 1955, Congress amended this Act by specifying that common varieties of previously locatable minerals, such as sand and gravel and stone, were to be disposed of under the provisions of the 1947 Act. Since that time BLM has disposed of mineral materials either by sale to the general public or by free use permit to qualified government or nonprofit entities as provided in the Act.

In Fiscal Year 1987, BLM completed approximately 2,500 sales and free-use permits, representing materials valued at approximately \$20 million. For many western communities, the public lands continue to be the only source for mineral materials, which are used in energy and mineral development, construction and maintenance of transportation systems, and the expansion of communities and industries.



Heavy equipment is dwarfed by this open-pit uranium mine.



A BLM archaeologist examines an abandoned homestead during a cultural resource survey.

Mining Law Administration

The Mining Law of 1872, as amended many times in its 115-year history, serves as the statutory basis for the disposition of "locatable minerals" from the public domain. In addition, minerals that are now disposed of via the Mineral Leasing Act of 1920 (such as oil shale) may be held, worked, and patented under the mining laws if claim location and discovery of valuable deposits preceded 1920.

Federally owned locatable minerals include valuable deposits of precious metals, base metals, industrial minerals (such as cement-grade limestone and bentonite) and uncommon varieties of building stone and other mineral materials.

The self-initiation feature of the Mining Law continued to serve the Nation's mineral industry well, as shown by the responsiveness of mining companies exploring the public land to locate mining claims as the outlook for locatable mineral commodities demands. For example, the coincidence of increased prices for gold and the discovery and refinement of the geologic model for "hot-springs" type gold deposits has led to a mining claim boom in Nevada as shown by Figure A.

Newmont Gold Mines located 40 miles west of Elko, Nevada, has surpassed the Homestake Mine in South Dakota as the largest producing gold mine in the United States. Fourteen of the top 25 U.S. gold mines are on, or partially on, land managed by BLM.

As increased interest in gold brought on by higher prices and a rebounding metals market cause greater activity, BLM will be challenged to provide for mineral development under multiple-use management while preventing any unnecessary or undue degradation of land to occur.

In Fiscal Year 1987, BLM accepted 146,638 mining claims and millsites for initial recordation under Section 314 of FLPMA. Annual filings of assessment work affidavits (or notices of intent to hold) served to hold 654,079 mining claims of record. Failure to file such documents annually is conclusive evidence of abandonment of the mining claim.

Under the surface management regulations administered by BLM, operators proposing to disturb the surface of public lands filed approximately 456 plans of operation (generally for disturbances of greater than 5 acres) and 1,860 notices (for lesser impacts) in Fiscal Year 1987. Reviews of the proposed activities ensure that no unnecessary or undue degradation of the public lands is likely to occur.

The BLM continued in Fiscal Year 1987 to emphasize its responsibility to promptly adjudicate mineral patent applications, reject or contest invalid mining claims, and issue patent to those mining claimants demonstrating a discovery of a valuable mineral deposit. As a result, 87,640 acres of mineral land passed into private ownership as patented lode or placer mining claims. Under the millsite provisions of the mining laws, 377 acres of nonmineral land were patented for uses reasonably incident to mining and milling purposes.



A caver negotiates a passage in a cave in Wyoming's World District.

and Programs

lands

During Fiscal Year 1987, BLM's lands program focused on:

- responding to State and local government requests for acquisition or use of public land for community expansion, recreation, and public-purpose activities;
- modifying land exchange processing to eliminate unnecessary requirements and streamline procedures;
- accelerating programs of State and private land exchanges to acquire important public values and access and to foster improved management of both Federal and nonfederal lands;
- transferring Federal land to States to satisfy indemnity (in-lieu) land entitlements that remained outstanding;
- reducing the backlog of land acquisition and use applications; and
- resolving cases of unauthorized use of the public lands.

The Recreation and Public Purposes Act authorizes Federal Government to lease or convey lands at no cost to State and local governments for public recreation purposes, and to lease or sell lands to government or nonprofit entities for other public purposes at less than fair market value. In Fiscal Year 1987, BLM approved 111 applications under this act, involving 93 acres of public land.

Land exchanges (trading public land for State or private land) provide opportunities to simplify ownership, improve respective management programs, acquire lands with high public values at little or no cost to the Federal Government, and meet both public and private needs. Consistent with the Administration's concept of Federalism—the return of authority and discretion to the local level of government—BLM's land exchange program helps State and local communities manage their own lands for the betterment of their citizens. The land exchanges increase local conservation resources and lands needed in order to be responsive to the needs of the people to support their own health and well-being.

The amount of acreage conveyed through exchanges climbed steadily from almost 70,600 acres in 1981 to 1,770 acres in 1986. In Fiscal Year 1987, 68 exchanges conveyed 322,837 acres of public land to state and private interests in return for 597,752 acres of their

Western states were admitted to the Union, they were granted Federal land for the support of common interests. In many cases, however, land due to the states has been preempted by settlement, mining claims, and

Federal programs. Accordingly, Congress authorized the States indemnity (or in-lieu) selections for the preempted lands. Conveyance of such in-lieu land to the Western States has been accelerated rapidly in recent years: between 1977 and 1980, only 3,859 acres were transferred; from 1981 through 1986, a total of 366,287 acres were conveyed. With much of the work accomplished, 1987 transfers totaled only 2,178 acres. About 165,000 acres of the original, multi-million acre entitlement remain. BLM will process the balance as States present their applications.

Public lands trespass continues to be a problem. During Fiscal Year 1987, BLM identified and recorded more than 2,000 occupancy and agricultural trespasses on more than 30,000 acres.

Processing of Desert Land Act applications constituted a major workload in Idaho and Nevada during Fiscal Year 1987. BLM processed 195 applications during the year, reducing to 573 a backlog that once involved more than 6,000 cases.

BLM continued to make selected public lands available for sale to allow for community expansion and other purposes. Most of the land sold consisted of small, isolated parcels. Tracts are carefully selected through BLM's land-use planning process to ensure that sale is appropriate. During Fiscal Year 1987, 7,359 acres of public land were sold at the appraised fair market value.

Withdrawals and Withdrawal Review

During Fiscal Year 1987, the Secretary of the Interior approved 22 withdrawals, encompassing 174,608 acres, for administrative sites, archeological and historic sites, wildlife refuges, experimental areas, scenic rivers, recreational sites, reclamation material sites, military reservations and test facilities, and a nuclear power site.

The Secretary also approved 14 revocations. Three of the revocations were under Section 204(a) of FLPMA for land exchanges and sales that were approved by legislation exempting them from the Preliminary Injunction in the *National Wildlife Federation v. Burford et al.* lawsuit that prohibited such actions. The other 11 revocations, affecting 74,785 acres in Alaska, came under Sections 22(h) and 17(d) of the Alaska Natives Claims Settlement Act, which permits selection by the State or conveyance to the Natives.

In Fiscal Year 1987, the Secretary also approved modifications of two existing withdrawals, one to transfer administrative jurisdiction of a prison and one under Section 17(d) of the Alaska Native Claims Settlement Act.

On July 15, 1985, the National Wildlife Federation filed suit in the U.S. District Court challenging the withdrawal and classification processes and actions taken by BLM since January 1, 1981, under Sections 202(d), 204(a), and 204(1) of FLPMA. A preliminary injunction was issued February 10, 1986, specifically prohibiting the Secretary of the Interior from modifying, terminating, or revoking, in full or in part, under FLPMA, any withdrawal or classification that was in effect on January 1, 1981; or taking any action inconsistent with the specific restrictions of any withdrawal or classification in effect on January 1, 1981.

This injunction impacted BLM's withdrawal review program to identify outdated withdrawals and return such lands to multiple-use management. Many such withdrawals and classifications were placed on public lands prior to passage of FLPMA in 1976.

This injunction also affected mining location and mineral leasing activities on public lands and slowed BLM's program to streamline its land management through exchange and sale of lands uneconomic to manage or lands needed by local or State governments for better management of their own programs. The suspension of many lands activities has significantly impacted many third parties, including individual citizens, local communities, and State governments throughout the West. Nationwide, many pending land exchanges and land sales were suspended including more than 250 Desert Land Entries, more than 500 sales and exchanges, nearly 1,000 mineral or Recreation and Public Purpose Act leasing actions, and recordation of 7,300 mining claims.

Alaska Lands

In Fiscal Year 1987, BLM in Alaska patented more than 2.1 million acres of land to the State of Alaska, bringing the total acres transferred to 83.1 million. This conveyance process of lands to the State satisfies one of BLM's top objectives under terms of the Alaska Statehood Act. The other main land transfer program is to the various Native corporations created by the Alaska Native Claims Settlement Act. Title to approximately 700,000 acres has been transferred to Alaska Native corporations. The Native regional and village corporations have received approximately 35.1 million acres to date. In addition, continued efforts to transfer individual parcels of land to Alaska Natives successfully led to more than 380 certificates of ownership being issued under the Native allotment program.

During the fiscal year, BLM provided the Congress with information on the impact of submerged lands on current state and Native land selections.

The Alaska BLM was reorganized in November 1986. The agency structure was reduced from a three-tier to a

two-tier organization, which resulted in a reduction of positions in mid-level grades. The reorganization is projected to bring an increase in dollars to the districts for field work.

Field surveys were completed for 280 Native allotments and small tracts, 822 miles of rectangular survey and 325 linear miles of Alaska Railroad right-of-way. Work continued in support of allowing placer mining to continue in the state. A special team was created to develop a court mandated EIS for four watersheds impacted by placer mining. Progress continued on the Environmental Impact Statement (EIS) for the development of a Gas pipeline, from the North Slope south to tidewater. Planning efforts for the Central Arctic Management Area/Utility Corridor continued with public hearings and draft review. The Fairbanks District Office construction commenced with a projected move date of 1988 from Fort Wainwright.

Rights-of-Way

During Fiscal Year 1987, BLM authorized two major rights-of-way and 2,147 smaller rights-of-way for various purposes under the authority of FLPMA. BLM also authorized two rights-of-way for major pipelines and 417 rights-of-way for smaller pipelines and related facilities under the authority of the Mineral Leasing Act of 1920.

Final regulations were issued in Fiscal Year 1987 that provide for both cost recovery for FLPMA rights-of-way and for the collection of right-of-way rentals as required by Section 504(g) of FLPMA. Instructions were provided to BLM field offices on how to implement the above regulations and also on other matters, including the processing of applications for rights-of-way for hydropower purposes, which require simultaneous filings with the Federal Energy Regulatory Commission.

Acquisitions

During Fiscal Year 1987, BLM acquired 128 easements for legal access, administrative use and rights of the public. In addition, 29 parcels were acquired in fee simple, using funds from the Land and Water Conservation Fund.

An access task force, established to evaluate the acquisition program and make recommendations to expedite or expand the program, completed its functions in Fiscal Year 1987. Recommendations received from that group will be used in developing methods to better utilize and augment existing funding to acquire easements and land.

Recreation Management

Hunting and fishing have occurred on public domain lands for hundreds of years. Other kinds of recreational activities began to accelerate as the population increased and shifted to the Western States. Availability of leisure time also increased. As a result, BLM initiated management programs to control the burgeoning recreational activities like sightseeing, picnicking, camping, hiking, hunting, fishing, and driving for pleasure.

The right to use public lands for recreation was recognized in the Taylor Grazing Act of 1935. However, it was not until the Classification and Multiple Use Act of 1954 that recreation was recognized as a major use of public lands. In 1976 FLPMA authorized BLM to manage recreation use on the public lands as an equal part with other uses. Providing recreation as part of multiple use management pays the greatest return to the public because the benefits produced by other resources are not foregone. As contrasted with single use recreation areas, BLM's multiple use management of recreation allows benefits from resources such as minerals, timber, and forage to be achieved while recreation also continues.

In Fiscal Year 1987, public lands accommodated more than 56 million recreation visits, an increase of 10 percent over Fiscal Year 1986, and over 517 million visitor hours, an 82 percent increase. Management of this use was accomplished by on-the-ground presence of rangers and other visitor service personnel, by controlling use through off-road vehicle designations, a permitting system, and through heavy reliance on volunteers and cooperative management. During Fiscal Year 1987, 243,287 volunteer hours were contributed with a savings to the Federal Government of \$1.3 million.



Administered rivers provide rafters excellent whitewater challenges.

Overall during Fiscal Year 1987, 52,770 camping and day-use permits were issued, a 4 percent decrease from Fiscal Year 1986. An additional 10,437 special recreation permits were issued, a 29 percent increase over the previous year. More than \$1.4 million in fees were collected. This represents a 10 percent increase in camping and day-use fees collected, and a 20 percent increase in fees collected in the special recreation permit program.

Through Fiscal Year 1987, approximately 94.7 million acres of public land were open to off-road vehicle use (subject to special operating requirements), approximately 45 million acres were designated for limited off-road vehicle use, and approximately three million acres were closed to off-road vehicle use.

BLM currently manages:

- 1,381 miles of National Wild, Scenic and Recreational Rivers (16 rivers)
- 6,692 miles of floatable rivers
- 1,556 miles of National Recreation, Scenic, and Historic Trails (21 trails)
- 1,959 miles of trails
- 65,000 miles of roads suitable for recreation travel by normal vehicles and thousands of miles of primitive roads used for back-country exploring, hunting, fishing, etc.
- 420 developed and semi-developed recreation sites, including 5,893 camp units and 2,564 picnic units
- 438 boating access points
- 7 visitor centers
- 14 concession operations
- 85,000 miles of fishing streams
- 4,240,000 acres of lakes and reservoirs
- 275 special recreation management areas

BLM continued to develop cooperative agreements with State governments to manage or improve recreation resources on public lands. Arizona became the first BLM office to receive funds from the State of California Department of Boating and Waterways to improve the Squaw Lake Recreation Site.

Work continued on developing comprehensive management plans for the San Pedro area in Arizona, which was acquired in a land exchange in 1985. Plans are moving ahead to open this major recreation area to public use by 1989.

A major recreation area management plan was completed for the East Mojave National Scenic Area. This area is a significant use area in southern California.

Work was initiated on Recreation 2000—A Strategic Plan. The goal of this task was to look at where the recreation program should be by the year 2000 and to develop a new policy statement to guide the growth of the recreation program over the next 12 years.

Cultural Resource Management

The cultural resource management program is a relative newcomer to BLM, tracing its origins to the National Historic Preservation Act (1966). The program's development accelerated after FLPMA established a basis for managing public land cultural resources in 1976. To date, nearly 150,000 archaeological and historic properties have been recorded on public lands, with 7,000 to 10,000 new entries being added each year.

Cultural resources are protected by numerous Federal statutes, including FLPMA, the National Historic Preservation Act of 1966, and the Archaeological Resources Protection Act of 1979. These laws establish the primary objectives of BLM's cultural resource program, which are the identification of the physical evidence of approximately 20,000 years of human occupation in the western hemisphere, the evaluation of the relative importance of these physical manifestations, and the determination of what management actions are appropriate for protecting the significant aspects of the cultural environment.

About 7.5 million acres of public land have been intensively inventoried for cultural resources. Presently, in excess of 4,000 sites have been determined eligible for the National Register, and 397 have been included in the National Register of Historic Places. In addition to numerous individual site stabilization and protection projects carried out in the past year, over 1.9 million acres of land, having some 83,000 cultural properties, were under protective patrol and surveillance.



A BLM archaeologist studies ancient pottery samples in New Mexico.

In Fiscal Year 1987, BLM placed continued emphasis on working with schools, civic groups, and archaeological societies to increase public awareness and understanding about cultural resources, the need to leave them untouched on the public lands, and the hazards of vandalism. BLM is actively seeking public cooperation in reporting thefts and vandalism and in refusing to buy stolen artifacts. Where education fails to deter pothunting and reduce vandalism, BLM vigorously enforces the Archaeological Resources Protection Act of 1979, which prohibits excavation or removal of archaeological resources without a permit, and also the sale, purchase, or transport of illegally removed remains. Amendments have recently been introduced that would extend the coverage of the Act to include the attempted destruction or looting of archaeological sites and that would make theft or looting a felony where the value of the artifacts involved is more than \$500.

In 1987, BLM took over administrative control of the Anasazi Heritage Center in Dolores, Colorado, from the Bureau of Reclamation. BLM moved the archaeological collections from the Dolores Archaeological project into the facility. BLM continues to work with the Bureau of Reclamation, constructing exhibits in anticipation of a grand opening in the summer of 1988. The Anasazi Heritage Center will be managed as an interpretive center and repository for cultural artifacts of the Northern Anasazi, a prehistoric culture that flourished in the four-corners area of Colorado, Utah, Arizona, and New Mexico some 2,000 years ago.

BLM annually issues more than 400 permits to individuals, consulting firms, and educational institutions to complete various cultural resource surveys and impact mitigation work on public lands, generally for compliance with statutory planning and protection requirements. The decentralized permit system, in operation since Fiscal Year 1985, allows State Directors to administer applications and permits in a timely and responsive manner.

Natural History Resource Management

Since 1931, scientific excavation of public lands near Cleveland, Utah, has unearthed more than 10,000 bones from at least 100 different animals that lived about 150 million years ago during the middle of the age of dinosaurs. Paleontological resources are administered under a variety of legislative mandates such as FLPMA, the Surface Mining Control and Reclamation Act of 1977, and the National Environmental Policy Act of 1969. These laws require the identification, management, and protection of scientific values and the preservation of important aspects of our Nation's natural heritage.



BLM wildlife biologists are on the lookout for the black-footed ferret, one of the rarest North American mammals.

BLM's paleontological resources management program provides for both scientific research and public educational use of fossils on public lands. In Fiscal Year 1987, 46 permits for paleontological scientific collection were issued. Fiscal Year 1987 also saw the completion of BLM's cooperative study with the National Academy of Sciences on issues affecting the collection of fossils on public lands. A final report has been prepared and BLM expects to use the report's recommendations as a basis for new collecting regulations.

Wilderness Review and Management

Since 1976 BLM has designated 25 wilderness areas in eight States totalling approximately 450,260 acres. FLPMA provides a legislative mandate for BLM to study the public lands for wilderness characteristics and recommend designation of such lands as wilderness areas to the President and Congress. Designated wilderness areas are managed under the authority of the Wilderness Act of 1964.

BLM completed its inventory in the Western States in September 1980. At the present time, BLM has 855 wilderness study areas containing approximately 25 million acres. Approximately two million acres in Alaska are included in a congressionally mandated wilderness study under the provisions of the Alaska National Interest Lands Conservation Act, with the results and recommendations to be sent to Congress by December 1988.

By the end of Fiscal Year 1987, BLM had completed 90 percent of the field study work in wilderness study areas, with remaining field activities scheduled for Fiscal Year 1988. BLM completed 23 final environmental impact statements covering wilderness study areas during Fiscal Year 1987. At the present time, based on field study work, BLM has preliminarily identified that approximately 11 million acres are suitable for designation as wilderness as part of the National Wilderness Preservation System. Mineral survey work in these areas is under way, and BLM is working toward completing the remaining final environmental impact statements.

No new BLM wilderness areas were designated by Congress in Fiscal Year 1987. Congress did not act on the package of 30 areas submitted by the President in April 1985, and no new BLM wilderness packages were submitted in 1987.

During Fiscal Year 1987, BLM continued to emphasize strict enforcement and compliance with the mandates of FLPMA for all activities occurring in wilderness study areas to protect their suitability for wilderness designation. A number of special public outreach initiatives were implemented to better inform the public and users of the public lands what they may and may not do in these areas. BLM continues to utilize volunteers and conservation groups to assist in monitoring activities in wilderness study areas. In Fiscal Year 1987, BLM also stepped up its training programs to increase the capabilities of BLM personnel to better manage activities in wilderness study areas.

Renewable Resource Programs

Rangeland Management

Range Management

Since passage of FLPMA, the range management program has broadened its focus beyond livestock grazing to include other, equally valuable, uses of the public lands. The range management program strives to protect and improve the rangeland resources while providing multiple use benefits. Sound land-use planning decisions are made in coordination, consultation, and coordination with range users, interest groups, and other interested parties at the national and local levels.

A major effort of the range management program has been to complete 144 environmental impact statements that address the impacts of livestock grazing on more than 170 million acres of public lands in 10 Western States. A total of 137 grazing environmental impact statements have been completed, including seven in Fiscal Year 1987. After a statement is completed, allotment management plans are prepared to identify specific on-the-ground activities to meet the resource management objectives identified during land-use planning. The BLM prepared 354 allotment management plans during Fiscal Year 1987.

In Fiscal Year 1987, about 4.6 million acres were inventoried using the ecological site inventory methods. The resultant data will be a basis for land-use planning, for identifying and supporting needed management actions, and for detecting changes in resource condition through monitoring studies.

Rangeland monitoring continues to be among BLM's top priorities. At the end of Fiscal Year 1987, there were 8,078 allotments with established monitoring systems. A national rangeland monitoring workshop was held in Denver, Colorado, in January 1987 for BLM managers and rangeland monitoring specialists, as well as other interested groups and individuals.

Range improvements continue to be an important part of the range management program. During Fiscal Year 1987, range improvements included development of 514 water facilities, construction of 597 miles of fencing, development of 95 management facilities, treatment of 93,471 acres of vegetation, and maintenance of 149 improvement projects.

BLM and the Forest Service continue to actively support the Experimental Stewardship Program, as authorized by the Public Rangelands Improvement Act of 1978. The purpose of the stewardship program is to foster innovation, cooperation, and better range stewardship, ultimately leading to improved condition of public lands. During Fiscal Year 1987, the 5th National Resource Stewardship Conference was held in Boise, Idaho, to establish stewardship goals to the year 2000.



A BLM range conservationist plants bullrushes in a stock watering reservoir to improve wildlife habitat.

The Experimental Stewardship Program continues to improve communication and cooperation between private range users and BLM and Forest Service personnel, and to increase pride in, and commitment to, the stewardship of public lands.

During Fiscal Year 1987, BLM, along with the Soil Conservation Service, Forest Service, and Extension Service, established a new Memorandum of Understanding for coordinated resource management. The purpose of this Memorandum of Understanding is to facilitate coordination of resource planning, management, and educational activities with State and local agencies, private landowners, and other interested publics for developing sound resource management and conservation programs. It is also intended to provide wider application of techniques and procedures developed through the Experimental Stewardship Program.

Soil, Water, and Air Management

Soil, water, and air resource considerations are often integrated into both the short- and long-term objectives of other BLM programs. Identification or inventory of existing soil, water, and air resources is the initial step in providing information needed for multiple-use planning and management.

Soil surveys were completed on five million acres during Fiscal Year 1987, bringing the total number of acres inventoried to 136 million. The goal is to complete a soil survey on 157 million acres of public range-lands by 1990.

BLM continues to approach the Fiscal Year 1988 goal for quantifying existing water uses. During Fiscal Year 1987, 7,400 sources were added to data bases used for recording water right filings with the States. Filings were made by BLM to the states for those water sources needed to provide for management of the public lands. The completion of 45 watershed improvements in Fiscal Year 1987 provided for reduced erosion and sediment yields, streambank and channel stabilization, and silt control. Maintenance of existing improvements continues as an ongoing effort, with 160 projects being completed in 1987. Approximately 2,800 watershed points were monitored to assess progress toward

meeting soil and water management objectives.

During Fiscal Year 1987, BLM submitted a report to Congress entitled "Salinity Control on BLM-Administered public lands in the Colorado River Basin." The report outlines a comprehensive program for minimizing salt contributions in the Colorado River from lands administered by BLM. In Fiscal Year 1987, the BLM also completed a comprehensive water rights assessment for in-stream flow requirements for Beaver Creek National Wild River in Alaska.

A wilderness baseline monitoring project was initiated in Fiscal Year 1987 to test and demonstrate monitoring techniques and develop monitoring plans for management of BLM wilderness areas and wilderness study areas. This pilot project will enable development of a monitoring plan format for use in Wilderness Management Plans.

The air resource program supports the operation of more than 28 Remote Area Weather Stations to provide climatic information for use in a wide variety of management activities. BLM's energy and mineral development activities, smoke management, and other programs are aided by the air modeling capabilities of the air resource program.

BLM's air resource program continues to play a key monitoring role in the National Acid Precipitation As-



This storage facility provides needed water for grazing allotments near Whitewater, Colorado.

assessment by operating 15 acid rain monitoring stations at remote locations in nine Western States. These stations provide data essential for the development of acid precipitation maps used to determine trends and possible impacts of acidic deposition in the Western United States.

Forest Management

Approximately 90 million acres of BLM-administered lands are forested. Most of these lands are in Alaska; however, some 26 million acres lie within the lower 48 States, including 21 million acres of woodlands and 5 million acres of commercial forest lands, capable of producing high quality commercial timber.

In western Oregon 1.143 billion board feet of timber were offered and sold during Fiscal Year 1987 and 1.239 billion board feet were harvested. On public lands outside western Oregon, BLM sold 92 million board feet of timber and offered and sold enough firewood to heat 40,000 homes. BLM also sold 90,000 Christmas trees in Fiscal Year 1987. Receipts from Western Oregon timber sales in 1987 totaled \$117.9 million.

The Federal Timber Contract Payment Modification Act requires the Secretary of the Interior to include in this report any actions that discourage bidding such that a purchaser is unable to perform contracts or any bidding that leads to speculation. In the process of monitoring bidding practices, BLM has discovered no evidence that indicates abuses. All timber sale contracts currently being purchased are being performed, and there is no evidence of speculative bidding. Rules implemented in 1982, requiring up-front cash deposits and scheduled payments and establishing procedures to offer more short-term contracts, have been effective. However, BLM will continue to monitor bidding practices.

The Noxious Weed EIS was published in March 1987. In July, hearings were held on a motion to partially lift an injunction, by a court in Oregon, against the use of herbicides. A ruling is expected that may allow Oregon to go forward with a noxious weed program in Fiscal Year 1988.

Trees were planted on about 27,670 acres in western Oregon, and reforestation was completed on 2,550 acres in other areas. In addition, 27,000 acres in western Oregon and 2,200 acres elsewhere were managed using intensive forest management practices.

Wildlife and Fisheries Habitat Management

In Fiscal Year 1987, the BLM wildlife and fisheries program achieved a milestone by completing a strategic plan for the program entitled "Fish and Wildlife 2000." This plan outlines the direction of BLM's wildlife and fisheries program between now and the year 2000.

Also, it provides for increased understanding of BLM's approach to management of fish and wildlife resources and the results of management. As a part of this effort, interdisciplinary teams involving both biologists and managers have been established to develop strategies for implementing specific goals and objectives, including waterfowl habitat, raptor habitat, fisheries, and expansion of outside contributions.

BLM manages extensive and diverse habitat for more than 3,000 wildlife species, including 140 threatened or endangered plant and animal species and some 870 species that are candidates for Federal listing. The BLM ensures that the needs of these and other key fish and wildlife species are considered in land-use planning and decisionmaking. Further, the BLM works in partnership with State wildlife agencies to ensure conservation and rehabilitation of wildlife habitat under the Sikes Act and FLPMA. FLPMA itself identified fish and wildlife habitat development and utilization as one of the six principal or major uses of the public lands.



BLM's responsibilities include managing wildlife habitat on public lands.

During Fiscal Year 1987, BLM initiated a pilot Sikes stamp program with the New Mexico Department Game and Fish. Also, consultation was initiated in Alaska, Colorado, Montana, and Wyoming concerning stamp programs in those States.

During Fiscal Year 1987, BLM constructed 687 fish and wildlife habitat projects, such as water facilities, fences, den and nest facilities, seedings, and instream structures, bringing the total since 1982 to 3,210. Habitat improvement projects are delineated in habitat management plans. These plans, cooperatively developed with state wildlife agencies and conservation organizations, focus on areas with significant fish and wildlife resources. Through Fiscal Year 1987, the BLM prepared or revised 400 habitat management plans encompassing 50 million acres. Of these, 115 have been fully implemented while 285 are in the process of being implemented. Also, through Fiscal Year 1987, 73 management plans have been prepared (50 animals, 16 projects) and an additional 12 are under development. In addition, rangewide management planning was conducted for the desert bighorn sheep and the desert tortoise. BLM manages about 90 percent of the remaining habitat for desert bighorns and over half of the remaining habitat for the desert tortoise. In support of land-use and management efforts, 20.2 million acres of fish and wildlife habitat, including habitat for threatened or endangered species, were inventoried. Monitoring of fish and wildlife habitat is conducted to determine whether fish and wildlife habitat management objectives are being met in BLM land-use and management activities. A total of 1,260 plans were completed in Fiscal Year 1987.

Wild Horse and Burro Management

A record number of wild horses and burros—more than 12,000—were adopted in Fiscal Year 1987. This was the first year that the number of adoptions exceeded the number of excess animals removed from the range.

Wild horses and burros are managed under the provisions of Public Law 92-195, as amended, generally referred to as the Wild Free-Roaming Horse and Burro Act. Major accomplishments in the program in Fiscal Year 1987 were the removal of 11,521 excess wild horses and burros and the adoption of 12,776 animals. This number of adoptions allowed BLM to reduce the number of animals in holding facilities from more than 10,000 at the start of the fiscal year to about 7,000 at the end of the year.

As a result of the roundup of more than 11,500 excess animals, the total population of wild horses and burros on public lands decreased to 43,200. This continued the steady progress begun in Fiscal Year 1985 towards the estimated appropriate management level of 30,000 animals.

The appropriate management level for each area is established through BLM's resource management planning process. (Areas used as habitat by wild horses and burros in 1971 are called herd areas; areas where animals will continue to be maintained are called herd management areas.) Through the planning process, decisions on whether to maintain wild horses and burros in the long term have been made for 267 of the 270 herd areas. To date, 199 of these have been identified as herd management areas, and the decision has been



Horses on the Pryor Mountain Wild Horse Range in south central Montana. The Bureau of Land Management administers the range, which was the first one established in the U.S.



Fiscal year 1987 brought homes to 12,776 wild horses and burros, making it a record-setting year for adoptions since the beginning of the program in 1973.

made to remove wild horses and burros from 68 herd areas.

When wild horse and burro populations in a particular area are greater than the appropriate management level for that area, the excess animals must be removed. The maintenance of unadopted excess wild horses remained a significant and costly problem in Fiscal Year 1987. By law, excess wild horses and burros must be removed from the range immediately and disposed of in the following order and priority: old, sick, or lame animals are humanely destroyed; healthy animals are made available for adoption; and unadopted excess animals are to be destroyed in the most humane and cost efficient manner possible. However, since 1982 the BLM has maintained a voluntary moratorium on destruction of healthy animals. To lessen the need for long-term Government maintenance of unadopted animals, the Director can reduce or waive the adoption fee for animals unadoptable at the standard fee. In Fiscal Year 1987, fee waivers accounted for approximately 8,000 adoptions.

The cost of maintaining unadopted wild horses, together with other concerns about the administration of the wild horse and burro program, led the Secretaries of the Interior and Agriculture to establish a Wild Horse and Burro Advisory Board in February 1986. The Board met three times in Fiscal Year 1986 to study the program and to hear testimony from Government officials and interested groups and individuals.

In December 1986, the Board met in Washington, D.C., and presented a report to the Secretaries. The report contained 21 recommendations in the areas of wild horse and burro management, disposition, research, and legislation. The central recommendation

proposed a five-step process for the disposition of excess wild horses and burros. The objective of the first four steps was to place the animals in private care. Step five provided for destruction of animals not placed through the other steps.

The four steps endorsed by the Board for placement of excess animals in private care included the regular adoption program at full fee, special adoptions at reduced or waived fees, training of wild horses by inmates at state prisons, and private sanctuaries. All but one of these steps were in operation in Fiscal Year 1987. The sanctuary concept, which required private sponsorship and funding, was the only step that was not implemented.

Neither the regular adoption program nor adoptions at altered fees were new approaches. A 1984 regulation had given the Director of BLM authority to waive or modify the fee for unadoptable animals. However, prior to Fiscal Year 1987, this authority was generally used only in transactions involving a minimum of 100 animals. In 1987, BLM's Eastern States Office experimented with making older wild horses available at reduced fees to individual adopters at satellite adoptions.

The third step suggested by the Board was the inmate-wild horse training program, which originated in Colorado. This type of cooperative effort between a State Department of Corrections and the BLM provided meaningful work for prison inmates while at the same time making wild horses more adoptable by halter breaking them. The states of California and New Mexico also entered into prison training agreements with BLM in Fiscal Year 1987, and other states were considering similar programs.

The Secretary of the Interior approved the Board's recommendations in March 1987, and the BLM drafted a policy statement that incorporated the recommendations. In April, BLM asked for public comments on the draft policy statement. About 5,000 written comments were received by the deadline. Most commenters focused on the five-step disposition process, and the overwhelming majority opposed step five, the destruction of unadopted healthy animals. By the end of Fiscal Year 1987, the BLM had completed a detailed analysis of the public comments, but had not yet developed a final wild horse and burro program policy statement.

One outgrowth of the Advisory Board's report was a marketing study of the adoption program, prepared in response to one of the Board's recommendations. A contract for this study was awarded in April, and the study was completed in July. The report contained recommendations for both long-term and short-term program improvements. As Fiscal Year 1987 ended, the study was under review, and a strategy for implementing the most feasible recommendations was scheduled for development in Fiscal Year 1988.

Another accomplishment in Fiscal Year 1987 was a technical review of the wild horse and burro program. Over the past three years, the growth of removals and adoptions made it apparent that some procedures for capturing, transporting, preparing, maintaining, and finally adopting wild horses and burros, required revision. Many of the existing procedures, while adequate when dealing with fewer animals, were not effective for larger numbers of animals. To identify and improve inadequate procedures, BLM conducted a technical program review in January 1987. Thirty-two recommendations to enhance program procedures were proposed. These recommendations will be incorporated in wild horse and burro program guidance to be developed in Fiscal Year 1988.

The BLM sought new contract proposals for wild horse maintenance for Fiscal Year 1988 because the original contracts were scheduled to expire at the end of Fiscal Year 1987. A protest delayed the process and it was necessary to extend the existing contracts through December 31, 1987. The award date for the new contracts was expected to be December 1, with a startup date of January 1, 1988.

Contracts for two research projects remained in effect during Fiscal Year 1987. One, investigating paternity patterns in selected horse herds, sought to determine the extent of paternity by the lead stallions in breeding bands of wild horses and the extent of genetic diversity among horses within herds. This information will enable evaluation of the extent of inbreeding in horse herds and the possible effectiveness of stallion-focused methods of fertility control. Collection of data was completed in the fall of 1986, with the final report due in November 1987.

The other contract dealt with methods of fertility control in wild horses. Pen trials were conducted in 1986 and early 1987 to determine effective compounds, dosages, and methods of implantation for estrus control in mares. Based on the results of these trials, fifty mares in each of two herds were implanted, marked, and fitted with radio-transmitter collars. Another fifty mares in each of two herds were implanted with empty carriers to serve as controls. Foaling rates in the treated and control bands will be monitored for 3 years and compared to estimate effects on reproduction. Additional data on band composition and stability will be available as well.

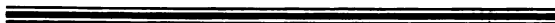
Stallion-focused fertility management is being studied in two other herds. In each of these herds, dominant stallions from 20 bands were captured, sterilized, marked, and released. Foaling rates in these bands will be compared to rates in untreated control bands.

The most significant judicial action in Fiscal Year 1987 was a court ruling enjoining BLM from titling wild horses adopted through power-of-attorney, fee waiver

transactions in situations where the adopter expressed the intent "upon granting the title, to use said animals for commercial purposes." The Department of Justice filed a protective notice of appeal of this ruling on behalf of the Department of the Interior.

Four other suits were outstanding during Fiscal Year 1987, and one case remained inactive. In March, the Supreme Court let stand without comment an appeals court decision that had overturned a ruling holding the Federal Government responsible for damages to private land by wild horses. Other issues in this case, which originated in 1979, had been settled previously.

The remaining three active cases were filed over a five-year period by a family in Nevada. Two of the suits were closely related; and in one, the plaintiffs successfully sought to set aside the BLM's land-use planning decision for managing wild horses on the Reveille Allotment. The BLM complied with a November 1986 court ruling that the agency determine an appropriate management level for the herd area and remove excess animals. In January 1987, the Department of Justice filed a notice of appeal on behalf of the Department of the Interior. Meanwhile, representatives of BLM and the plaintiffs began negotiations in an attempt to arrive at an overall settlement of the issues in two of the three lawsuits. By the end of the fiscal year, substantial progress had been made in this effort; and on October 1, 1987, a memorandum of understanding was signed by all parties, agreeing to take the necessary legal steps to effect a stipulated settlement. In the third suit, there were no developments in Fiscal Year 1987 in the plaintiffs' pursuit of judicial review of an Interior Board of Land Appeals decision regarding range improvement modifications that excluded wild horses from water use.



Support Services

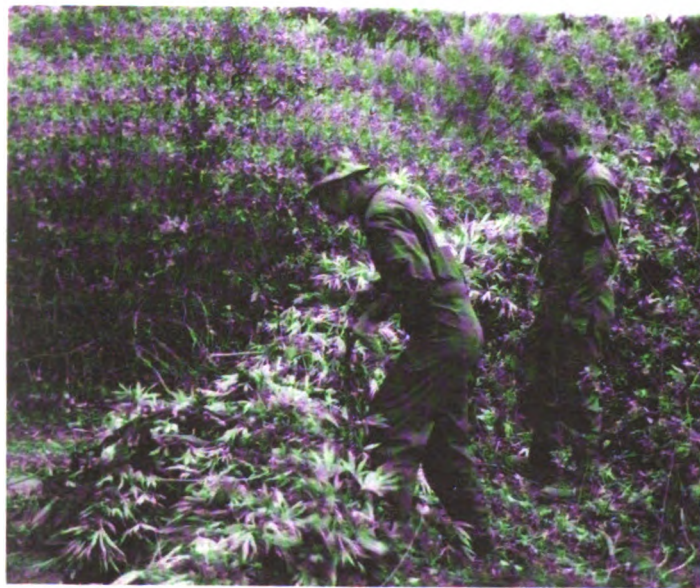
Law Enforcement and Resource Protection Operations

Areas of enforcement that have received particular emphasis since establishment of the law enforcement program in 1976 include investigation and eradication of cannabis cultivation; prevention of theft, destruction, and sale of protected archaeological resources from public lands; investigation of oil and gas theft; and wild horse and burro violations.

Since the passage of the Federal Land Policy and Management Act of 1976, BLM initiated a law enforcement and resource protection operations program that utilizes special agents and law enforcement rangers, all well trained in law enforcement, to enforce laws pertaining to the public lands and their resources.

Where appropriate, law enforcement agreements with local officials are also used to enforce laws or ordinances of the respective State or subdivision upon public lands. BLM law enforcement officers perform a full spectrum of patrol and investigative duties and are authorized to enforce all Federal laws and regulations pertaining to use, management, and development of the public lands and their resources.

During Fiscal Year 1987, BLM special agents and law enforcement rangers continued efforts with other Federal, State, and local agencies to eradicate cannabis on public lands in California, Oregon, and other Western States. BLM also increased its efforts to enforce the Archaeological Resources Protection Act of 1979 by emphasizing the investigation of destruction, theft, and sale of archaeological artifacts.



BLM employees assist in a raid on a marijuana field on public lands.

Cadastral Survey

Under 43 USC 2, BLM's Cadastral Surveying Division has the ultimate responsibility for all Federal surveying. Its work, therefore, extends beyond the survey and resurvey of public lands, authority for which goes back to the Land Ordinance of 1785. With perfecting changes, its rectangular principles were enacted into law under the Constitution in the Public Lands Act of 1796 and have been carried forward to 43 USC 751. Consequently, there is a nationwide dimension to BLM cadastral surveying. Its crews are in the field from Florida into Maine, from Maine into California, and from California into Alaska. BLM's cadastral surveyors continue to introduce changes in their ancient art to take advantage of emerging technology.

BLM maintains all official Public Land Survey System records covering 30 States. Because private surveyors are constantly making resurveys and subdivisional surveys, these records are in steady demand as the basis for the new surveying, even in States which have long since ceased to be public lands States.

Field accomplishments during Fiscal Year 1987 include surveying nine million acres, of which 7,500,000 acres were original surveys and 1,500,000 acres were resurveys. Ninety-nine percent of the original surveys were Alaska Statehood grants or Alaska Native Claims grants; the remainder were mostly public lands and Indian lands. The resurveyed acres were principally public lands and national forest lands but included Indian lands and Federal reclamation lands.

To provide on-the-ground identification and to yield simple, precise descriptions for legal records for the 9 million acres, BLM surveyors ran 17,000 miles of survey lines, marked them with 23,000 monuments, and filed 1,200 sets of plats and field notes, the definitive legal record of the surveys. In Alaska one-third of the original surveys and many special surveys were contracted to private survey firms. BLM directed the work and approved the plats and field notes after ascertaining that the survey was done in accord with *The Manual of Surveying Instructions*, 1973.

BLM surveyors cooperated with a five-State consortium of professional land surveying societies in Kansas, Nebraska, Colorado, Wyoming, and South Dakota in finding the Initial Point of the Sixth Principal, lost for many years under the pavement of a road junction on the Kansas-Nebraska State line, which is also the meridian's baseline. State officials and the local public joined in the official remonumentation, held June 11, 1987, the anniversary of its establishment. The official restored monument was set in a receptacle recessed in the road junction pavement. In addition, a sizeable commemorative monument was dedicated immediately east of the official marker. The Sixth Principal Meridi-

n's Initial Point is notable because more public land was surveyed, or is likely to be surveyed, from it than from any other of the 35 Initial Points.

Public land survey system geographic coordinates were provided for the nine-township test project for the Automated Land and Mineral Record System conducted at BLM's Farmington Resource Area in New Mexico. The Farmington Resource Area project staff has used the data yielded by the test and has successfully demonstrated its usefulness in daily work.

In addition, a full-time staff position was established at the Washington Office to provide program guidance and support for assigning latitude and longitude coordinates for corners of the Public Land Survey System. Such coordinates are necessary for the automated Land Information System before it can be fully integrated with the Automated Land and Mineral Record System.

The Cadastral Surveying Division cooperated with New Mexico State University in launching a four-year course in surveying. Under an Intergovernmental Personnel Act agreement, a senior BLM Spanish-speaking geodesist has joined the university faculty to formulate a four-year course in surveying. Completing such a course will soon be required for future professional accreditation in New Mexico.

Marked progress was achieved in the transition from manual to automated processes for the preparation of maps and field notes. Automation reduces the former time-consuming manual preparation, while maintaining the meticulousness that must characterize plats and field notes as authoritative records of the survey.

Fire and Aviation Management

The BLM Fire Management Program set several records this fiscal year, in terms of minimized resource damage to timbered lands in western Oregon, mobilization of firefighters and other firefighting resources, and safety achievement. At the same time, the BLM Aviation Management Program experienced only one aircraft accident and no serious injuries in more than 10,000 hours of flight time. The aviation program also trained five new technical specialists for training, safety, and general aviation technical assistance.

Fire Management

Fire has always been a part of the natural environment. With that in mind, BLM sees fire from two different aspects—wildfires that cause negative impacts and must be suppressed, and prescribed fires that can be used to achieve positive resource management objectives. In a change from the days of total wildfire exclusion on public lands, BLM today uses fire as a major tool in accomplishing multiple-use objectives, while suppressing only the damaging and unwanted wildfires.

BLM is responsible for fire management on more than 350 million acres of Federal and nonfederal lands in the 11 Western States and Alaska. The fire program also continues to develop new technology in ground equipment, aircraft, and computer technology.

In addition, BLM manages the Boise Interagency Fire Center in Idaho. This is the national fire support center, providing support to agencies of the Departments of Interior and Agriculture, and to the Department of State (for assistance to foreign countries), as well as to the State governments.

During Fiscal Year 1987, BLM had nearly 3,000 wildfires, far exceeding the normal annual average of 2,350 wildfires. But the acreage burned, 497,000 acres, was barely half the normal one-million acres burned in an average year.

The 1987 fire season was characterized by the third year of drought in the Western United States. As early as May, provisions were made to increase firefighting capabilities in Arizona, California, and Oregon. By the end of August, normal fire occurrence and effective fire suppression for three months had left all wildland firefighting organizations thinking the worst would not happen, despite the severe drought conditions.

Beginning the last two days of August and continuing in early September, the Western United States, especially California and southern Oregon, were overwhelmed by the heaviest lightning storms of the season. The dry lightning, coupled with the drought conditions, resulted in the worst and most damaging fires in recent history.

Mobilization of firefighting crews and other resources was unprecedented both in quantity and in the short timeframes involved. The suppression effort involved personnel from 42 States, Puerto Rico, and Canada. At the peak, nearly 25,000 firefighters fought the many wildfire complexes. Both Oregon and California activated the Army National Guard for support, and a battalion of the Seventh Infantry Division, 6th Army at Fort Ord (more than 600 soldiers) was also trained and deployed for firefighting.

The Boise Interagency Fire Center also had a record year in 1987, providing support to suppression efforts on 1,600 wildfires. The Fire Center moved nearly 32,000 personnel, including 1,333 20-person crews, utilizing contract, commercial, and military aircraft. There were 46 Interdepartmental Class I Overhead Team assignments. In addition, the Center supported 60 nonfire and foreign incidents with personnel, communications equipment, and supplies. Foreign nations receiving support included Africa, Argentina, China, Yemen Arab Republic, and Canada.

The safety record achieved by BLM firefighters in 1987 was outstanding. More than 1.8 million hours were worked on firelines with no fatalities and no major accidents. The Fire Management Program received



A firefighting crew awaits orders for the day.

awards from both BLM and the Department of the Interior for accomplishing this feat.

BLM also participated in the National Wildland/Urban Interface Initiative during Fiscal Year 1987. The Initiative is co-sponsored by the Department of the Interior (through BLM), U.S. Forest Service, National Fire Protection Association, and U.S. Fire Administration. The increase in construction of homes in and near wildlands has become a very important factor in wildland firefighting. When wildfire strikes, the priority becomes protection of private buildings instead of public resources, such as timber, grazing lands, and recreation areas. And the potential for loss of human life becomes frighteningly high. While the mission of Federal wildland firefighters is to protect wildland resources, they are increasingly forced to sacrifice control of a wildfire to defend homes.

Reduction of fire hazards in this setting will require more than just individual action by homeowners to reduce fire hazards on their own property, although that is a very important goal of the Initiative. It will also depend on the cooperation of a variety of entities, including county zoning departments, architects, real estate agencies, and insurance companies. The purpose of the National Wildland/Urban Interface Initiative is to increase community awareness of the inherent wildfire hazards attached to living in or adjacent to the wildlands, and to work toward making the changes that could resolve these problems.

Significant progress also occurred during Fiscal Year 1987 in the area of communications and automated data systems. BLM continued to develop the Initial Attack Management System (IAMS), changing its communications system was moved from phone lines to satellite, resulting in major cost savings.



Firefighters examine an area a wildfire swept through.

Prescribed fire use in BLM increased significantly in Fiscal Year 1987. There were 728 projects completed that burned 101,754 acres. As is normal, the majority of the activity, more than 500 projects, was in support of forestry management in western Oregon. Of the acreage burned, 47,000 acres were burned to accomplish range improvements, and 28,000 acres were burned to benefit wildlife.

Fire rehabilitation costs on damaged soil/watershed areas were \$3.63 million, distributed among 65 projects. These fire rehabilitation efforts included reseeding of grasses or shrubs, construction of protective fences or dams, and installation of culverts and other drainage devices.

Aviation Management

During Fiscal Year 1987, the natural resource programs in BLM accumulated over 25,000 hours of flight time at a cost of \$14.59 million. Firefighting activity accounted for 74 percent of the cost.

To enhance the management support required by this level of aviation activity, BLM added three technical specialists to State Offices in Arizona, California, and Idaho; and an aviation training development specialist and an aviation safety specialist to the Boise Inter-agency Fire Center. These personnel are available to provide a wide range of technical expertise in the aviation management and safety fields to all BLM offices.

BLM's aviation safety record for Fiscal Year 1987 was only one accident on 25,000 hours of flight time. A helicopter was destroyed in this accident, but the occupants suffered only minor injuries.

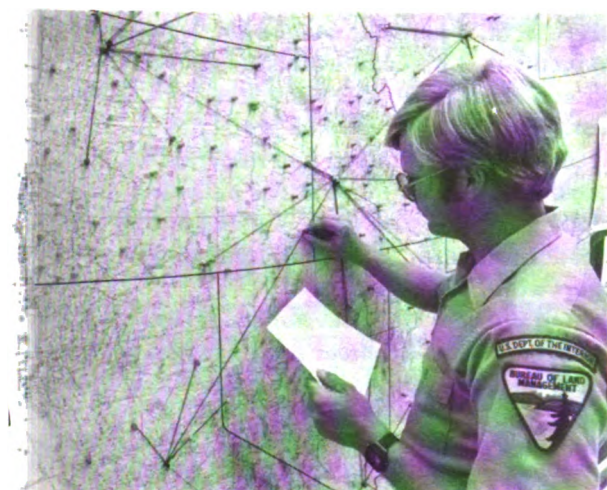
Engineering Services

When BLM was established in 1946, it inherited its physical facilities from its parent agencies, the General Land Office and the Grazing Service along with a primitive road system that reflected the miscellaneous needs of ranchers, mining companies, railroads, and county and State governments. Since the mid-1960s, BLM has constructed numerous roads and trails necessary for administration of the public lands. Where suitable lease office and other facilities are not available, BLM has constructed its own office buildings, warehouses, shops, and other facilities tailored to the agency's resource management responsibilities.

In Fiscal Year 1987, BLM completed about 70 percent of the construction of the new Fairbanks, Alaska District Office complex, as well as numerous smaller projects, such as major road maintenance, recreation work, and building repair work. In addition, a plan is developed for an extensive long-range maintenance inventory and condition survey planned to begin in Fiscal Year 1988.

BLM provided maintenance to about 140 office buildings, more than 800 other BLM-owned buildings and associated water and sewer systems, approximately 800 developed family unit recreation sites, 5,000 undeveloped (without water) sites, approximately 10,000 miles of roads, more than 1,000 miles of trails, and 30 bridges.

With Fiscal Year 1987 completions, BLM has available 1:100,000 scale surface and subsurface maps providing coverage for approximately 90 percent of the



BLM employee of the Boise Interagency Fire Center - the national fire suppression center located in Idaho - plots geographic locations of Remote Automated Weather Stations. Remote weather information, in conjunction with the Automatic Lightning Detection System, which records nearly every negative lightning strike in the West and Alaska, allows incident commanders to make quick, accurate fire suppression decisions.

lands administered by BLM. Photogrammetric and remote sensing support was provided by a central office at Denver as well as within each State. Automation of cartographic functions was continued in Fiscal Year 1987 and has become an integral part of BLM's Automated Resource Data System.

Additional support was provided through survey and design of various range improvement and watershed construction projects. BLM continued its dam inventory and hazard assessment programs in Fiscal Year 1987.

Information Resources Management

Within BLM, Information Resources Management includes automated data processing (including security), telecommunications, and records. The Information Resources Management staff is currently involved with rapidly growing technology and rapidly increasing demands for automation to support resources management on the public lands.

BLM is acquiring additional computer resources to support its State Office minicomputers and its mainframe computer in Denver, Colorado. New PRIME minicomputer systems in State Offices, District Offices, and Resource Areas and numerous microcomputers Bureauwide are bolstering BLM's evolving automation requirements. Graphics applications, both for Geographic Information Systems and business purposes, have exploded at an astonishing rate.

Automated data processing security is of growing concern to BLM. Security reviews were conducted in three States during Fiscal Year 1987, in conjunction with information systems reviews. BLM's security plan was completed and submitted to the Interior Department during Fiscal Year 1987.

During Fiscal Year 1987, BLM reduced its use of the more traditional dedicated land line circuit in favor of fiber optic circuits and leased satellite service, which under some circumstances are less expensive. For example, BLM replaced a tactically important, terrestrial fire management data network with leased satellite service, and in doing so, reduced the annual recurring cost by 40 percent (\$200,000).

In addition, BLM reduced its subscription to consolidated telephone service, provided in major metropolitan areas by the General Services Administration, in favor of BLM-owned and maintained systems. Savings of \$1.6 million dollars are anticipated over the next 10 years.

In Fiscal Year 1987, BLM's records management achievements included a cooperative program with the National Archives and Records Administration to develop an original method for cross-referencing old and new land patent case files. The results will enable public researchers to know that updated information concerning an original patent exists in BLM.

After a four-year project, BLM issued a new and revised records retention and disposition schedule. This schedule lists all known categories of BLM records, where they are located, on what media they exist, whether they are permanent or temporary, and how long they are to be maintained.

A Land Information System concept was adopted in Fiscal Year 1987. This system ensures that separate users shared in common development efforts for their respective automated records, resources, and coordinates data, rather than creating independent systems requiring unnecessarily expensive interfaces. In addition, extensive coordination efforts with other Federal agencies, State and local governments, industry and public interest groups were expanded in Fiscal Year 1987 to ensure a broad understanding of how this BLM automated data can be used by others.

Volunteers and Other Contributed Services

BLM's Volunteer Program continued its steady growth during Fiscal Year 1987. The hours of work contributed by unpaid citizen volunteers for the public lands increased by 44 percent over Fiscal Year 1986, and the number of volunteers increased by 17 percent.

During 1987, BLM's field managers reported that more than 9,000 volunteers contributed approximately 570,000 hours of work (the equivalent of approximately 317 workyears) valued at more than \$5.3 million. Incidental costs to the government associated with this activity were estimated at approximately \$605,000, indicating a costs-to-benefits relationship of about 9 to 1.

Volunteers serving with BLM received 2 of 18 President's Volunteer Action Awards for 1987, widely considered the most prestigious award for volunteer service in the United States. BLM's two winners, selected from among approximately 2,000 nominees nationwide, are Jack A. Glover, of Roseburg, Oregon, and the Fraternity of the Desert Bighorn, based in Henderson, Nevada. Glover, and two leaders of the Nevada wildlife conservation group, Wilford and Penney Allen, received the awards from President Reagan at a White House luncheon on June 30.

During Fiscal Year 1987, BLM for the first time asked field officials to report statistics for "hosted workers"—defined as persons who do work that assists BLM for which they are paid wages by some agency other than BLM. These workers are not considered to be volunteers, since the agency defines volunteers as persons who contribute their services to BLM and receive no pay for their work from any source.

One example of such a hosted-worker program that BLM officials are utilizing is the Senior Community

Service Employment Program, a federal program through which low-income older people can work and be trained on the job up to 20 hours a week at minimum wage for public or community service organizations. Other examples are State or local government work programs for unemployed young people, such as the California Conservation Corps; the Job Training Partnership Act program through which unemployed workers receive on-the-job training; and military programs under which local units can occasionally do work primarily for training purposes, such as building a bridge or other facility, that also benefits public land users.

In 1987, field managers reported they were assisted by 1,500 hosted workers, who served more than 147,000 hours (the equivalent of 82 workyears) and accomplished work valued at nearly \$1.3 million. Since incidental costs were estimated to total \$82,000, the indicated costs-to-benefits relationship of the hosted-worker program was approximately 15 to 1.

In Fiscal Year 1987, BLM attracted a combined total of 10,550 supplemental workers (both volunteers and hosted workers), who provided a total of approximately 718,000 hours of work (399 workyears). Total value of this work is estimated at more than \$6.58 million, and incidental costs at \$687,000.

Both volunteers and hosted workers assisted in a diversity of ways and provided many different skills and interests. Recreation-related work attracted 34 percent of all supplemental-worker assistance. Among renewable resource activities, wildlife projects attracted 13 percent of the assistance; wild horse and burro management, 9 percent; forestry, 5 percent; range-improvement, 3 percent; wilderness review and management, 2 percent; watershed/hydrology, 1 percent; and other renewable resources work, 3 percent. Historic and cultural resource protection projects attracted 10 percent. Energy and minerals work accounted for 2 percent; operations activities, 10 percent (including construction work, 4 percent, and resource protection activities, 2 percent); and administrative support work, 8 percent.

During the year BLM developed and tested its first training course in Volunteer Program Management. The training package, developed by a Bureauwide working group in cooperation with BLM's Phoenix Training Center, includes guidance on recruiting and effective use of hosted workers, as well as of volunteers.

General Administration

Administrative Services

During Fiscal Year 1987, BLM spent \$79 million for goods and services. Expenditures totaled \$37 million for contracts valued at \$25,000 or more and \$42 million for small purchases.

BLM continues to exceed its goals in various socio-economic procurement programs, as shown in Table A.

Table 3
BLM Procurement Program
Fiscal Year 1987

	FY 1987 Goal (\$000)	Actual Award (\$000)
Small Businesses	49.0	57.1
Women-Owned	1.3	1.6

In August 1987, BLM implemented the Bankcard Program with the issuance of nearly 400 U.S. Government Mastercards by the U.S. Department of Commerce and the Rocky Mountain Bank. The card is intended primarily as an efficient tool for over-the-counter purchases up to \$1,000 by field personnel who are heavy users of SF-44s, the imprest fund, and Blanket Purchase Agreements. The card is also used by warranted procurement personnel to place telephone orders up to \$1,000, and by cadastral survey and fire crew chiefs to purchase meals and lodging up to \$500. The Bankcard Program is authorized under Section 15 of the Office of Federal Procurement Policy Act, as amended. The Act authorizes the Administrator of the Office of Federal Procurement Policy to develop innovative procurement methods to be tested by selected executive agencies. The program will be evaluated in Fiscal Year 1988 and recommendations will be made whether to implement the program permanently. BLM implemented an Automated Fleet Management System during Fiscal Year 1987. This system provides improved management data for all user levels while reducing costs to update the system. BLM was also selected to implement and operate a Departmentwide Asset Management System for other bureaus. This is scheduled for implementation in Fiscal Year 1988. BLM developed Bar Coding parameters during Fiscal Year 1987 to enhance the Automated Personal Property System, to improve management's control over personal property, and to reduce the costs associated with inventorying and controlling personal property. In Fiscal Year 1987, BLM participated in a General Services Administration test of a Generic Real Property System for executive agencies. As a result of this test, BLM will implement the new automated system in Fiscal Year 1988 to provide more current information for

managing BLM-owned and leased real property and to improve reporting of real property assets.

In July 1987, BLM released a solicitation for a single source-supplier to manufacture, inventory, distribute, and account for all BLM uniforms. This initiative was based on BLM's decision to improve the professional appearance of employees with high public visibility. The new contracting system provides a guarantee of item availability, uniformity in design and style, improved quality and durability of components, an improved uniform allowance authorization system, timely shipment of uniforms to BLM offices, and accountability of allowances and items.

Changes to the uniform policies include introducing a new color (BLM taupe) for all top weight garments (blazers, jackets, vest, baseball caps, etc.), adding components to meet the needs of the uniformed wearers, allowing a broader segment of personnel to wear the uniform, clarifying uniform classifications and authorized components, and prescribing procedures for obtaining and wearing the uniform properly. The new uniforms will be available in the spring of 1988. We believe that BLM personnel will be pleased with the new uniform and that BLM's missions will be enhanced as our image continues to improve.

Financial Management

BLM's Division of Finance in the Washington Office directs the operation of improvements to BLM's accounting system; provides guidance on financial management policy and procedures; and manages the Payments in Lieu of Taxes program and the BLM Public Land revenue sharing payments to State and local governments program.

During Fiscal Year 1987, BLM continued its program to improve cash management. The Division of Finance coordinated with the Office of the Secretary and the Department of the Treasury to continue the use of private banking "lockbox" facilities to permit the use of an electronic funds transfer system to expedite the collection and deposit of Oregon and California Grant Lands timber revenues. Approximately \$77 million was collected in Fiscal Year 1987 by the use of lockbox. This resulted in an estimated interest savings to the Federal Government of \$64,730 for Fiscal Year 1987.

The Division of Finance supported programs with unique financial management needs, such as fire suppression administrative support teams, reimbursement procedures, mineral leasing, and billings and collections. The Division of Finance also was responsible for coordinating and overseeing BLM's implementation of internal control system to ensure that all programs and functions performed by BLM are reviewed periodically to minimize the possibility of waste, fraud, and abuse in

accordance with the Federal Managers' Integrity Act. This function was transferred to the Division of Program Evaluation effective with Fiscal Year 1988.

Management and Productivity Initiatives

During Fiscal Year 1987, BLM undertook several initiatives designed to improve the productivity of its programs and employees. A Bureauwide productivity improvement plan using a "total Bureau" program emphasis was developed and included in the Fiscal Year 1988 budget document. The quality and quantity of work accomplishments will be monitored as a means of identifying where efficiencies are occurring or where efficiency needs to be improved.

BLM also developed the Productivity Pilot Program, a three-year program to improve the quality of worklife for employees, establish a more active organization, create more responsive resource management, improve the quality of work, and improve productivity. Four BLM districts, (Susanville, California; Butte, Montana; Roswell, New Mexico; and Rock Springs, Wyoming) were selected from a list of nominations based upon the existing variety of resource management conditions, strong motivational characteristics, and ability to support a significant pilot program. The pilot program that began October 1, 1987, allows local managers to set priorities in conjunction with Departmental, BLM, and State priorities, and to do things because they make sense. The program has the potential to reduce unnecessary procedures and tasks. Successful initiatives that could have Bureauwide application will be recommended to the Bureau Management Team for consideration.



A BLM employee examines cacti in California's desert.

Personnel Management

BLM's Division of Personnel in the Washington Office concentrated much of its efforts on developing personnel policies in connection with streamlining of personnel services, career development programs, and major position classification issues during Fiscal Year 1987.

In an effort to improve productivity through maximum use of human resources, BLM is continuing the implementation of its career program. The program has five major components: New Employee Orientation, Employee Excellence Seminar, Professional Excellence Program, Management and Leadership, and Advanced Leadership. The first two components are geared to all employees at the beginning and early stages of their careers and are designed to build an understanding of and commitment to BLM's mission and their role in that mission. The final three components focus on identifying and developing both a reserve of technological expertise and a body of high-potential future managers and leaders.

During Fiscal Year 1987, BLM employed approximately 10,000 individuals. Continued emphasis was placed on position management and position classification throughout BLM. Comprehensive State-level position classification reviews were completed on a wide variety of professional and technical support positions; local personnel management committees in the field provided key direction for this effort. State-level monitoring of position management trends in accordance with locally-managed plans continued to achieve a better record in position management.



A BLM soil scientist uses a hand seeder to reseed an area for reclamation.

Financial Management

Appropriations and Expenditures

BLM programs are funded through six major operating appropriations, several minor permanent and trust appropriations, and reimbursements from other Federal agencies for work performed on their behalf. In addition, the BLM budget includes one annual appropriation and numerous permanent appropriations that provide funds to State and local governments in which Federal land resources are located, either as payments in lieu of taxes or as shared revenues from the sale, leasing and disposition of resource commodities.

Table 4 BLM FUNDING				
	FY 1984	FY 1985	FY 1986	FY 1987
	(In millions)			
BLM	\$ 482.7	489.0	457.8	577.1
Operating Appropriations				
Payments-in-Lieu of Taxes	105.0	103.0	99.9	105.0
Permanent Payments to States	58.1	141.1	12.4	81.4
Other Miscellaneous	7.7	4.8	4.7	5.9
TOTALS:	\$ 653.5	728.8	574.8	769.4

Table 5
Program Funding and Obligation Data
Fiscal Years 1986 through 1988

	FY 1986	FY 1987	FY 1988
	Actual	Actual	Enacted
	(In thousands)		
MINING (Including O&C Grant Lands)			
Appropriation	\$ 9,222	\$ 9,863	\$ 10,097
Obligation	9,201	9,752	10,079
Work Years	214	205	214
ENERGY AND MINERALS PROGRAMS			
LAND AND GAS MANAGEMENT			
Appropriation	42,630	46,915	47,152
Obligation	42,228	46,365	47,152
Work Years	1,115	1,127	1,128
GEOTHERMAL MANAGEMENT			
Appropriation	2,639	2,444	2,458
Obligation	2,612	2,388	2,458
Work Years	60	50	55

FY 1986	FY 1987	FY 1988
Actual	Actual	Enacted
(In thousands)		

COAL MANAGEMENT

Appropriation	18,506	14,050	13,608
Obligation	18,444	13,957	13,608
Work Years	310	250	245

OIL SHALE/TAR SANDS MANAGEMENT

Appropriation	2,008	0	0
Obligation	19,250	0	0
Work Years	25	0	0

NONENERGY LEASABLE (MINERALS LEASING AND URANIUM OPERATIONS)

Appropriation	4,621	4,453	4,745
Obligation	4,617	4,317	4,745
Work Years	101	89	90

MINING LAW ADMINISTRATION AND MINING MATERIALS

Appropriation	9,891	11,451	12,707
Obligation	9,857	11,310	12,707
Work Years	267	282	288

LANDS PROGRAM

ENERGY AND NONENERGY REALTY

Appropriation	\$ 16,076	\$ 17,012	22,137
Obligation	16,005	16,809	22,137
Work Years	445	429	488

ALASKA LANDS

Appropriation	12,822	14,157	14,003
Obligation	12,766	14,079	14,003
Work Years	292	269	254

RIGHTS OF WAY

Appropriation	7,442	8,414	7,891
Obligation	7,442	8,405	7,891
Work Years	224	224	216

ACQUISITIONS

Appropriation	8,784	9,198	10,502
Obligation	4,143	3,279	10,502
Work Years	48	49	49

WITHDRAWAL REVIEW

Appropriation	3,583	3,599	3,465
Obligation	3,339	3,547	3,465
Work Years	85	83	75

	FY 1986	FY 1987	FY 1988
	Actual	Actual	Enacted
(In thousands)			
WILDERNESS REVIEW			
Appropriation	6,967	7,300	7,462
Obligation	6,959	7,260	7,462
Work Years	159	154	151
RECREATION MANAGEMENT			
Appropriation	8,284	9,769	10,319
Obligation	8,348**	9,640	10,319
Work Years	190	212	213
NATURAL HISTORY AND CULTURAL RESOURCE MANAGEMENT			
Appropriation	\$ 5,783	\$ 6,630	\$ 6,629
Obligation	5,780	6,545	6,629
Work Years	125	126	124
RENEWABLE RESOURCE PROGRAMS RANGELAND MANAGEMENT (INCLUDES SOIL, WATER, AND AIR)			
Appropriation	55,431	59,803	63,335
Obligation	55,606**	58,392	63,335
Work Years	1,181	1,179	1,213
FOREST MANAGEMENT (INCLUDES PUBLIC DOMAIN AND O&C LANDS)			
Appropriation	51,485	52,782	54,673
Obligation	51,568**	50,864	54,673
Work Years	1,096	1,053	1,041
WILDLIFE HABITAT MANAGEMENT			
Appropriation	16,503	17,467	19,664
Obligation	16,464	17,306	19,664
Work Years	350	348	346
WILD HORSE AND BURRO MANAGEMENT			
Appropriation	16,234	17,936	14,735
Obligation	16,230	17,920	14,735
Work Years	152	155	139
SUPPORT SERVICES LAW ENFORCEMENT			
Appropriation	3,177	3,362	3,560
Obligation	3,168	3,350	3,560
Work Years	38	41	39
CADASTRAL SURVEY			
Appropriation	25,605	27,165	27,943
Obligation	25,554	27,058	27,943
Work Years	461	475	451

	<u>FY 1986</u>	<u>FY 1987</u>	<u>FY 1988</u>
	<u>Actual</u>	<u>Actual</u>	<u>Enacted</u>
	(In thousands)		
ENGINEERING AND MAINTENANCE			
Appropriation	\$ 15,441	\$ 17,100	\$ 18,307
Obligation	15,313	16,787	18,307
Work Years	269	269	265
FIRE MANAGEMENT			
Appropriation	10,346	11,022	11,505
Obligation	10,352**	10,999	11,505
Work Years	144	140	148
GENERAL ADMINISTRATION			
Appropriation	79,528	86,679	87,425
Obligation	79,520	88,218	87,425
Work Years	1,064	1,120	1,111
DATA MANAGEMENT			
Appropriation	13,309	15,650	22,215
Obligation	13,339	15,556	22,215
Work Years	252	252	252

** Obligations include expenditures from prior year unobligated carryover funds.

Revenues and Receipts

BLM is a primary collector of Federal revenues. Gross receipts from the lease, use, and sale of public lands and resources totaled approximately \$219.5 million in Fiscal Year 1987 (see Table 6). Of this amount, \$74 million will be returned to the States, \$13 million was transferred to the Reclamation Fund, \$7.9 million was transferred to other Federal agencies, and the remaining \$123.9 million went into the general fund of the U.S. Treasury. Monies appropriated from the Treasury to BLM operating expenses totaled \$481 million in Fiscal Year 1987.

The development and use of BLM lands and resources generate receipts from a variety of sources. Timber receipts totaled \$152.6 million in Fiscal Year 1987. Receipts generated by other BLM programs, including sale of public lands, simultaneous oil and gas filing fees, grazing, right-of-way leases, permits, and rentals, and other miscellaneous receipts remained constant with receipts from past years, with the exception of those for simultaneous oil and gas filing fees which decreased significantly.

Table 6 Bureau of Land Management's Receipts		
	FY 1987 Actual	FY 1988 Estimated
STATEMENT OF PUBLIC LAND RECEIPTS		
Mineral Leases and Permits	\$ 5,338,521(*)	\$ 6,268,000
Sales of Public Lands & Materials	8,288,142	10,000,000
Simultaneous Oil & Gas Filing Fees	16,619,388	15,000,000
Fees and Commissions	1,675,817	1,700,000
Sales of Public Timber	11,032,110	14,700,000
Oregon and California Grant Lands (Timber Sales)	136,844,266	142,800,000
Coos Bay Wagon Road Lands (Timber Sales)	4,819,772	5,400,000
Grazing Fees	14,315,412	14,840,000
Rights-of-Way Rentals	3,399,509	2,400,000
Rent of Land	376,952	375,000
Miscellaneous Leases and Permits	3,099,261	2,225,000
Nonoperating Revenue**	12,729,370	13,461,000
Special Recreation Use Fees	1,028,356	1,000,000
TOTALS	\$219,566,876	\$230,169,000
LOCATION OF PUBLIC LANDS RECEIPTS		
States and Counties	\$ 74,648,220	79,726,000
Reclamation Fund	13,035,963	14,972,000
Transferred to Other Fed. Agencies	7,964,990	8,227,000
Indian Trust Fund	4,970	10,000
General Fund	123,912,733	127,234,000
TOTALS	\$219,566,876	\$230,169,000

only reflects receipts collected for the rental of oil gas pipeline rights-of-way, Natural Petroleum Revenue revenues, and miscellaneous mineral revenues administered by the Bureau of Land Management.

incidental receipts from fines, taxes, etc., that are related to routine public land administration.

Table 8 Summary of Payments in Lieu of Taxes by State	
State	FY 1987 Payment
ALABAMA	115,059
ALASKA	5,179,705
ARIZONA	8,465,658
ARKANSAS	1,100,286
CALIFORNIA	11,058,651
COLORADO	6,394,950
CONNECTICUT	23,900
DELAWARE	4,590
DISTRICT OF COLUMBIA	5,165
FLORIDA	1,103,370
GEORGIA	704,486
HAWAII	9,406
IDAHO	7,828,410
ILLINOIS	294,868
INDIANA	148,704
IOWA	126,214
KANSAS	335,155
KENTUCKY	596,221
LOUISIANA	173,007
MAINE	63,760
MARYLAND	34,345
MASSACHUSETTS	61,514
MICHIGAN	1,342,815
MINNESOTA	854,769
MISSISSIPPI	388,492
MISSOURI	1,177,338
MONTANA	8,398,123
NEBRASKA	330,116
NEVADA	5,804,131
NEW HAMPSHIRE	217,019
NEW JERSEY	30,341
NEW MEXICO	10,618,667
NEW YORK	48,693
NORTH CAROLINA	1,285,613
NORTH DAKOTA	563,659
OHIO	187,563
OKLAHOMA	758,674
OREGON	2,885,470
PENNSYLVANIA	203,755
RHODE ISLAND	0
SOUTH CAROLINA	125,255
SOUTH DAKOTA	1,760,765
TENNESSEE	515,207
TEXAS	1,272,376
UTAH	9,896,722
VERMONT	241,912
VIRGINIA	1,053,534
WASHINGTON	1,914,740
WEST VIRGINIA	813,342
WISCONSIN	437,581
WYOMING	7,529,799
PUERTO RICO	7,677
VIRGIN ISLANDS	82,432
GUAM	2,489
TOTALS	104,586,493

State and Local Shares

BLM's most direct fiscal impact upon States that include public lands is through revenue sharing and other direct payments. In the decade from 1977 through 1987, State and local governments received nearly \$4 billion as their share of revenues collected from the lease or sale of public land resources and as in-lieu payments for tax-exempt lands.

Revenue Sharing

Taylor Grazing Act revenues are distributed according to the type of land generating them. Of the fees collected from livestock grazing districts, 12.5 percent are distributed to the State for expenditure by the State legislature to benefit the counties generating these grazing receipts. Grazing revenues generated on public lands outside the grazing districts are shared equally with the State. State legislatures have the authority to expend the funds to benefit the counties where grazing monies are collected.

Land sale revenues generated in Nevada under the Santini-Burton Act are collected and distributed on an annual basis. This Act authorizes the allocation of 10 percent of gross revenues back to Clark County or the municipality in which these revenues are generated, and five percent to the State of Nevada. The remaining revenues are deposited in the Land and Water Conser-

vation Fund for the purchase of environmentally sensitive land in the Lake Tahoe Basin.

Payments in Lieu of Taxes

Local government units within Western States are the principal beneficiaries of the 1976 Payments in Lieu of Taxes Act. This law was enacted to provide Federal payments to those areas where large portions of land are in Federal ownership and, therefore, are exempt from local property taxes. Serving as a supplement to revenue sharing funds, payments in lieu of taxes are made directly to local governments and may be used for any governmental purpose.

Lands eligible for payments in lieu of taxes are Federally owned lands in the National Forest and National Park Systems, lands administered by BLM, lands dedicated to the use of Federal water resource development, dredge disposal areas under the jurisdiction of the Army Corps of Engineers, National Wildlife Reserve Areas, inactive and semiactive Army installations, and certain lands donated to the United States Government. The Act specifically prohibits payments for lands (but not certain donated lands) that were tax exempt before being acquired from State or local governments.

Since payments in lieu of taxes started in 1977, more than \$1.1 billion has been paid to local governments; more than \$104.5 million of that amount was paid in Fiscal Year 1987 (see Table 8).

Table 7
Payment of BLM Receipts to States
as of September 30, 1987

States	Mineral Leases and Permits	Forage Receipts Outside Taylor Grazing Districts	Forage Receipts Inside Taylor Grazing Districts	Sale of Public Land and Timber	Other	Total
Alabama	\$ 0	\$ 0	\$ 0	\$ 405	\$ 0	\$ 405
Alaska	1,196,121	0	0	17,064	0	1,213,185
Arizona	19,242	115,879	94,407	9,481	0	239,009
California	12,615	109,320	19,328	123,074	0	264,337
Colorado	39,431	32,578	78,709	20,364	0	171,082
Florida	0	0	0	45	0	45
Idaho	7,693	23,025	173,817	39,462	0	243,997
Kansas	0	10	0	0	0	10
Minnesota	0	0	0	271	0	271
Montana	3,767	97,857	106,351	8,446	488,220	704,641
Nebraska	0	1,478	0	1,590	0	3,068
Nevada	0	27,679	291,864	213,574	0	533,117
New Mexico	325,242	166,705	253,614	74,091	13,284	832,936
North Dakota	131	6,340	0	735	0	7,206
Oklahoma	50	215	0	469	5,917	6,651
Oregon	310	31,879	158,835	72,856,479	0	73,047,503
South Dakota	89	45,860	0	776	5,907	52,632
Utah	47,458	0	165,115	16,407	2,806	231,786
Washington	0	18,634	0	10,096	0	28,730
Wisconsin	0	0	0	16	0	16
Wyoming	139,476	311,710	170,483	30,669	0	652,338
Totals	\$1,791,625	\$989,169	\$1,512,523	\$73,423,514	\$516,134	\$78,232,965

Look Ahead—1988

Fiscal Year 1988 will offer many challenging issues and programs for BLM in its 42nd year of managing the Nation's Public Lands. A sampling of important BLM management goals for 1988 are summarized in the following pages.

Hazardous Materials Management

Develop a hazardous materials policy so that BLM can effectively deal with toxic materials on the public lands.

Seek legislation to amend Section 3 of the Recreation and Public Purposes Act of 1926. The proposed amendment would remove the existing reverter provision and allow BLM to patent land to communities in the West at a reduced cost. While this amendment would assist in avoiding Federal costs on future solid waste facilities, it would not change BLM's liability for existing sites. Such a bill would assure that much needed land-fill sites would be available to small communities and that these communities would have primary responsibility for their operation and maintenance. It would also assure that supervision of local waste sites would be handled by State and local governments and the Environmental Protection Agency, entities that have the necessary expertise to handle waste sites that may contain hazardous materials.

Establish an effective working arrangement between land managing agencies and the Environmental Protection Agency for cleanup activities on Federal lands. Important parts of this effort are to ensure that agency expertise is used for highest priority matters and to avoid duplication of effort among Federal agencies.

Complete preliminary assessments and site investigations to meet statutory requirements.

Initiate a remedial investigation/feasibility study to identify appropriate measures for cleanup on the Lee Acres Site in New Mexico.

Conduct land status assessments to identify ownership of sites and to determine if BLM is responsible for possible cleanup action.

Energy and Minerals Management

Oil and Gas Management

Publish proposed rulemaking concerning measurement of oil and gas, hydrogen sulfide opera-

tions, disposal of produced water, well workover/completion/abandonment, and waste prevention/beneficial use.

Coal Management

- Complete revisions to the Federal coal leasing program by issuing final regulations revising certain coal unsuitability criteria.
- Through the regional coal teams, plan regional coal leasing over the next five years.
- Establish national standards for assessing the adequacy of hydrology data.
- Develop regional data adequacy standards.

Mineral Materials

- Increase awareness and public participation in the mineral materials program through a Project Pride initiative.

Land Programs

Lands

- Continue a dynamic land-exchange initiative with emphasis on public-interest trades that will increase management efficiencies for the United States and nonfederal entities. Toward this end, BLM estimates that approximately 435,000 acres will be traded with the States, local governments, and private sector during the fiscal year.
- Continue to be responsive to other public land applications. Overall during 1988, BLM expects to process 130 desert land applications, offer 6,800 acres for sale, and process 160 applications under the Recreation and Public Purposes Act.
- Identify and resolve agricultural trespass on public lands, focusing on areas with high potential for environmental damage and significant loss of income to the public.
- Promulgate regulations to prohibit unauthorized use, occupancy, or development of the public lands. The regulations will provide for recovery of administrative and rehabilitation costs as well as back rent. The regulations are also expected to provide a deterrent to future agricultural and occupancy trespass. BLM expects to complete action on 1,000 unauthorized use cases in Fiscal Year 1988.

Alaska Lands

- Resolve ownership and management issues in 26 rural communities through the townsite program.
- Continue review of the land exchanges proposed by the Assistant Secretary, Fish and Wildlife and Parks that would exchange Alaska Native Inholdings within National Wildlife Refuges in Alaska for limited oil and gas rights in the Arctic National Wildlife Refuge.
- Continue land activity through the patent plan process to address land title issues for the State and Alaska Natives. Continue special focus on historic and cemetery sites provided under the Alaska Native Claims Settlement Act for the Native corporations.

Rights-of-Way

- Put in place the Lands Automated Billing System, a system to replace the current billing system, with operation beginning in Fiscal Year 1989.
- Develop trespass regulations for the rights-of-way program that would provide Bureauwide standards for assessing damages for unauthorized right-of-way use of public lands and provide for the recovery of administrative costs.
- Complete guidance on disposal of produced waters (water produced as a by-product from oil and gas production).

Acquisition

- Follow up on the recommendations made in 1987 by the Acquisition Task Force.

- Complete two slide/video programs on the acquisition program.

Recreation Resources

- Complete development of the Recreation 2000 Initiative. Approve and distribute the new recreation resources management policy. Start development of guidance to implement the new policy.
- Continue to stress development of partnerships for management of recreation resources with Federal, State, and local agencies and private organizations.
- Establish a working relationship with national, State, regional, and local tourism entities.

Cultural Resource Management

- Continue to vigorously enforce the Archaeological Resources Protection Act of 1979, which prohibits excavation or removal of archaeological resources without a permit, and also the sale, purchase, or transport of illegally removed remains. In conjunction with this, in Fiscal Year 1988 each BLM State will prepare a comprehensive Archaeological Resources Protection Act Awareness/Enforcement Plan outlining the scope of the vandalism and looting problem in the State and developing and implementing measures to combat the problem.
- Place continued emphasis on monitoring permittee compliance with permit terms and conditions to ensure the completion of good-quality and cost-effective archaeological work.



Surveyors must sometimes use unconventional methods to reach surveying sites, such as Native allotments.

Wilderness Resources

- Continue the emphasis on monitoring and surveillance of activities in wilderness study area.
- Emphasis training for managers in interim management and management of designated areas.
- Begin preparation of wilderness study reports on areas where final wilderness environmental analysis has been completed.

Renewable Resource Programs

Wetland Management

- As part of the continuing nationwide work in acidic deposition monitoring, prepare to operate three dry deposition (aerosols, gases) monitoring sites co-located with acid rain stations in Idaho, Nevada, and Wyoming. These stations are part of the National Dry Deposition Network, which will establish 10 stations in the West in Fiscal Year 1988.
- Complete a comprehensive water rights assessment for instream flow requirements for the San Pedro River Riparian Resource Conservation Area in Arizona.
- Publish the proposed and final rulemaking to implement Executive Order 12548 to establish a permanent grazing fee formula.

Riparian Area Management

- Develop a strategy to describe riparian area sites and associated management potential.
- Initiate a riparian area management contest to be sponsored by the American Fisheries Society for field offices in BLM and Forest Service.
- Establish a task force to review methods for determining economic effects of proper riparian area management.

Wildlife Habitat Management

- Complete State strategic plans for fish and wildlife. These plans will enable a stronger consensus of management and others as to the future program and a more clearly targeted program at the field level.
- Place increased emphasis on fisheries habitat management because of the recreational and economic importance of these resources.
- Also focus on management for waterfowl habitat, with emphasis on BLM's role in implementing the North American Waterfowl Management Plan; raptor habitat; threatened and endangered spe-

cies habitat, especially in regard to management of 800 candidate species in a manner that will preclude the need for Federal listing; and desert bighorn sheep and desert tortoise habitats (via implementation of rangewide plans).

Wild Horse and Burro Management

- Develop a final wild horse and burro program policy. The public and congressional response to the draft policy make it uncertain if the proposal to destroy healthy unadopted animals will be implemented. Other aspects of the proposed policy, such as the creation of sanctuaries for otherwise unadoptable animals, also needs careful consideration.
- The President's budget for Fiscal Year 1988 proposed the removal of 10,000 excess wild horses



Bighorn sheep in Wyoming's Whiskey Mountain area in the Rawlins District produce many sheep that are transplanted to other areas.

and burros and the adoption of 13,500. Fee waivers constituted roughly two-thirds of the Fiscal Year 1987 adoptions. It was unclear how great an effect the court decision concerning titling of animals would have on fee waiver adoptions, if the Government's appeal were unsuccessful. Any significant interruption to this part of the adoption program could force a reduction in other planned activities, e.g., removals, in order to accommodate the increased cost of maintaining unadopted animals. If removals must be curtailed, the achievement of the appropriate management level of wild horses and burros on the Public Land would be further delayed.

Support Services

Planning

- Continue to establish better ties between land-use plans and implementation of decisions (including allocation of resources) by linking planning decisions with the annual work plan and identifying how automation can be used to improve implementation of plans.
- Issue the revised BLM handbook for implementation of the National Environmental Policy Act.
- Hold an Environmental Management Conference to identify issues facing BLM in the 1990s.
- Complete the last grazing environmental impact statement required by the 1974 court settlement with the Natural Resources Defense Council, as an integral part of the Cody (Wyoming) resource management plan. The last 49 grazing environmental impact statements, of 143 total, were incorporated into resource management plans.
- Initiate a vigorous outreach program to explain the revised guidance for evaluation and designation of areas of critical environmental concern.

Automated Land and Mineral Record System

- Develop the system master architecture, which is a general system design used in specifying the automation requirements and in selecting a vendor, for both the Automated Land and Mineral Record System and other automated needs of BLM.
- Implement comprehensive data administration procedures to establish a solid data base for operational use on existing systems in advance of soft-

ware and hardware completion.

- Expand formal and informal coordination with other agencies.
- Continue data collection necessary to support the project.
- Develop the BLM infrastructure, including assessing training requirements and possible organizational changes.

Fire and Aviation Management

- Implement the new Fire Management Activity Plan process leading to completed plans covering all BLM District Offices.
- Begin implementation of the approved recommendations from the Fire Management Improvement Initiatives taskforce report leading to increased productivity, efficiency, and cost effectiveness.
- Continue participation and enhance current efforts with the ongoing Wildland/Urban Interface Initiative.
- Develop a Bureauwide aviation safety accident prevention plan.
- Plan and develop a wide range of new aviation related training courses and materials.

Information Resources Management

- Complete BLM's Modernization Project, exploring new and better equipment and ways for automation.
- Conduct automated data processing risk analysis and training on continuity of operations plans, with comprehensive, on-site plans being developed. This effort will involve a new, microcomputer-driven program to expedite security planning and ensure that BLM maintains its automated records using the most secure means possible.
- Consolidate the detailed records inventories completed in Fiscal Year 1987, thereby accurately defining BLM's records status. Together with an accurate inventory of BLM's electronic records, for the first time a comprehensive tool for managing information will become a reality and responding to public inquiries will be enhanced.
- Continue intensive work on the Automated Lands and Minerals Record Program, as additional BLM field offices increase their program capability and service to the public.
- Establish a BLM standard relational data base management system software package.
- Issue final life cycle management guidelines.



The Alaska Fire Service sends firefighters to the Lower 48 when things cool down in Alaska.

- Continue evolution and development of Land Information Systems concept. Continue acquisition of PRIME minicomputers to support these systems.
- Continue progress into Fiscal Year 1988 for more distributed automation resources, enabling BLM's field offices to have increased computer, telecommunications and records management capability. This will improve "on-the-ground" management and service to the public.
- Implement the first year's IRM Trainee Program, which is designed to provide cross-training in the fields of automated data processing and communications. At the completion of the program, participants will have acquired the skills necessary to successfully manage all the technical Information Resource Management disciplines required at BLM's State Offices, Denver Service Center, Boise Interagency Fire Center, or Washington Office. Three trainees will be selected at approximately six-month intervals, beginning in early Fiscal Year 1988.
- Conduct three Information Systems Reviews.

Volunteers

- At each of BLM's 12 State Offices, conduct at least one training workshop for volunteer program coordinators and other representatives of all BLM districts.

General Administration

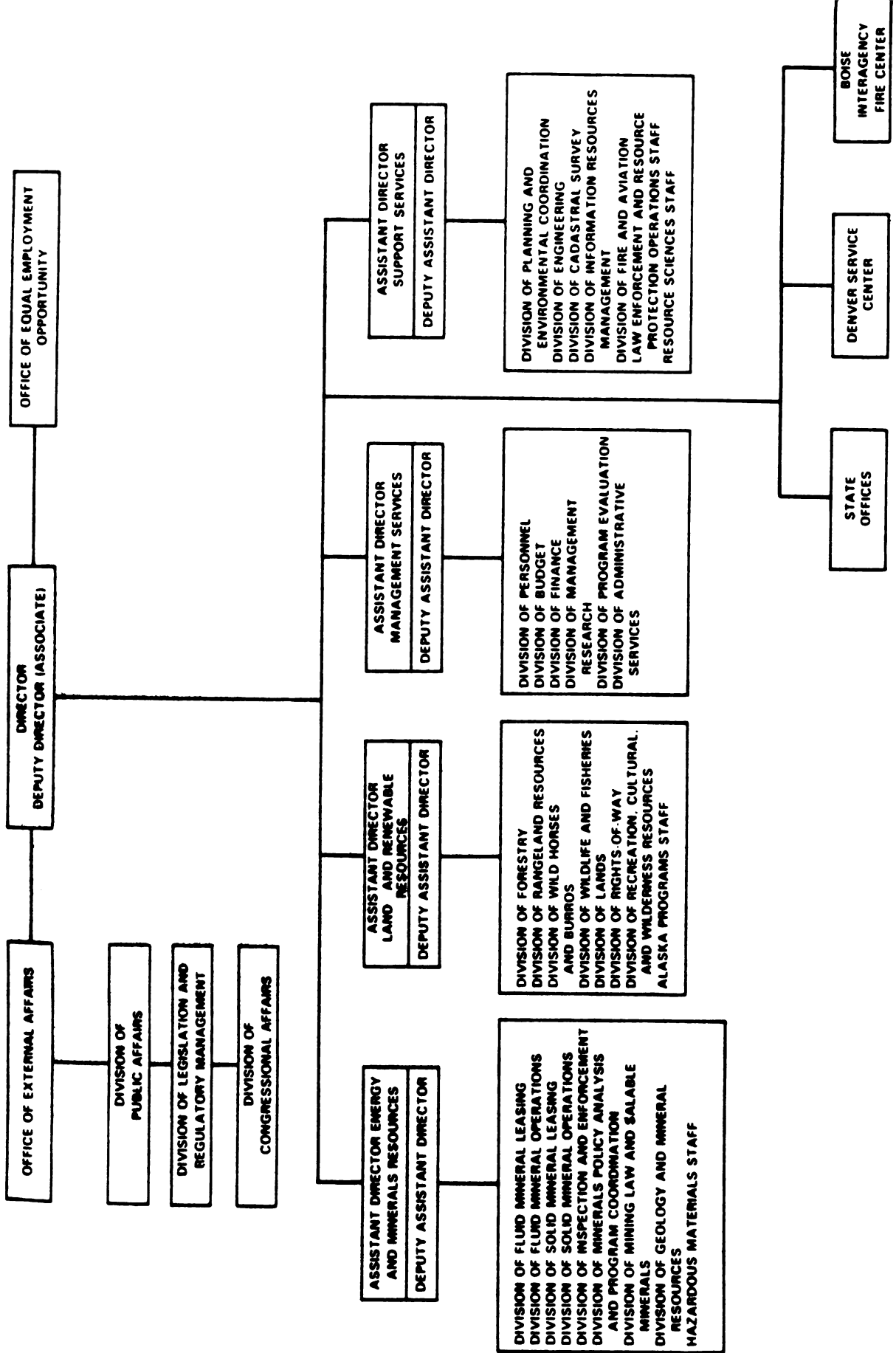
Management and Productivity Initiatives

- Implement the Productivity Pilot Program in the four Pilot Districts. Employees through BLM can suggest to the Pilot Districts ideas about ways to do business more effectively and efficiently for possible testing in the Pilot Program, thus allowing all employees an opportunity to participate in the program.
- Refine, track, and evaluate the Bureauwide Productivity Improvement Plan as a means of identifying where efficiencies are occurring or where efficiency needs to be improved.
- Participate in the Secretary of the Interior's Productivity Enhancement Funding Program by encouraging employees to identify means of achieving greater productivity throughout the agency and the Department. Seed money is provided for approved projects on a maximum two-year basis to encourage innovative approaches to work accomplishments.

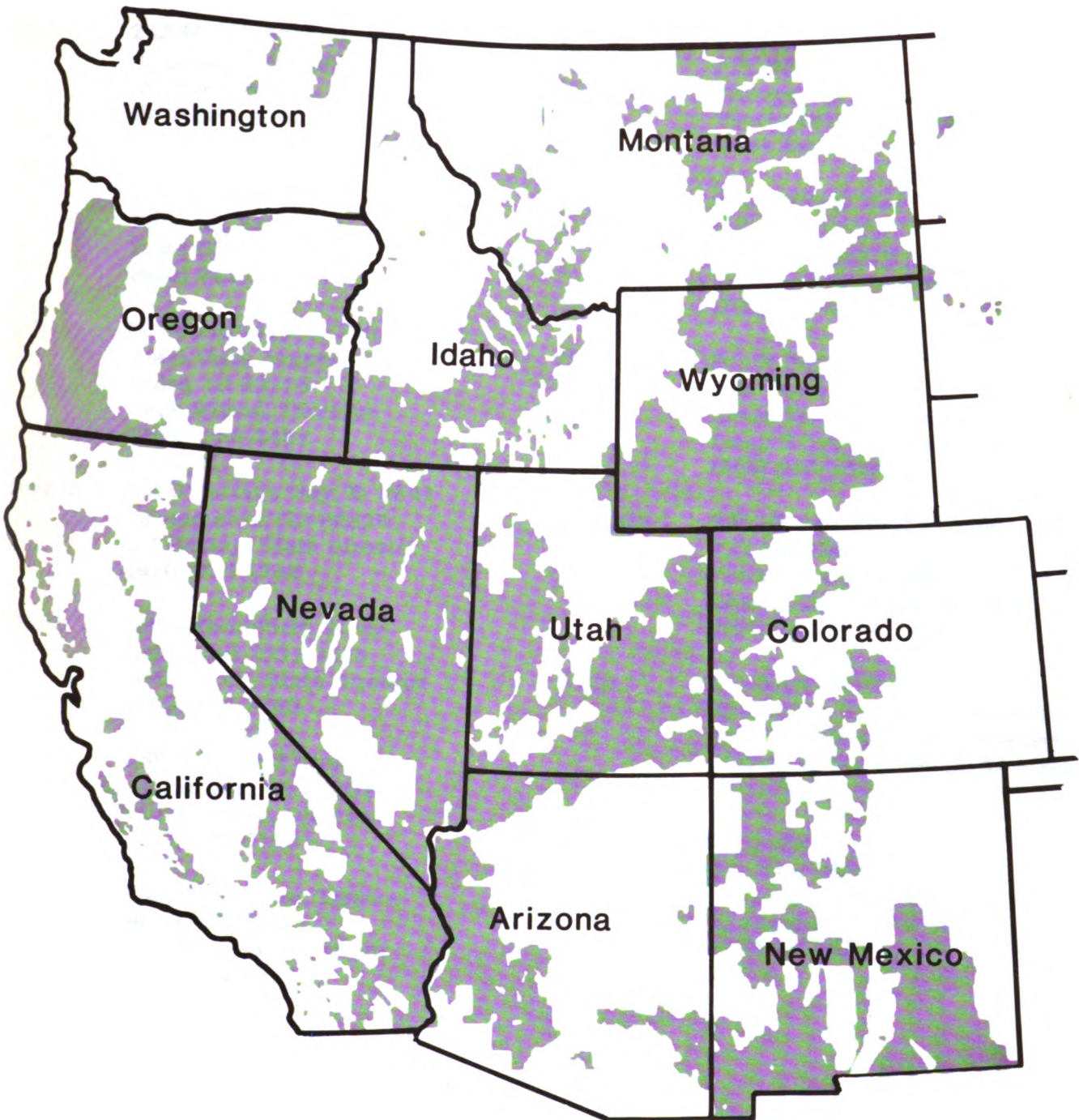


High school student volunteers in Oregon contribute their energy and muscle power to assist the Bureau of Land Management improve spawning and rearing habitat for salmon and steelhead trout in a stream managed by BLM's Eugene District. Here, guided by an adult supervisor, students fill a wire cage with rock to build a "gabion," a water-retention structure designed to ensure future spawning runs of these prized sea-going species. During 1987 volunteers made it possible for BLM to complete fishery improvement measures on more than a dozen western Oregon streams.

BUREAU OF LAND MANAGEMENT



PUBLIC LANDS IN THE WESTERN STATES



Legend



LANDS MANAGED BY BLM



**U.S. Department of the Interior
Bureau of Land Management**

**Bureau of Land Management
State Offices**

Alaska : 222 W. 7th Avenue, #13
Anchorage, AK 99513 -7599
Michael Penfold, State Director
(907) 271-5555

Arizona : 3707 N. 7th Street
P.O. Box 16563
Phoenix, AZ 85011
Dean Bibbes, State Director
(602) 241-5504

Idaho : Boise Interagency Fire Center
3905 Vista Avenue
Boise, ID 83705
Jack Wilson, Director
(208) 389-2457

California : 2800 Cottage Way, E -2841
Sacramento, CA 95825
Ed Hastey, State Director
(916) 978-4746

Colorado : 2850 Youngfield Street
Lakewood, CO 80215
Neil Morck, State Director
(303) 236-1700

Eastern States : 350 S. Pickett Street
Alexandria, VA 22304
Curtis Jones, Director
(703) 274-0190

Montana : 3380 Americana Terrace
Boise, ID 83706
Del Vail, State Director
(208) 334-1771

Montana : 222 N. 32nd Street
P.O. Box 36800
Billings, MT 59107
Marvin LeNoue, State Director
(406) 255-2913

Nevada : 850 Harvard Way
P.O. Box 12000
Reno, NV 89520
Ed Spang, State Director
(702) 784-5311

New Mexico: South Federal Place
P.O. Box 1449
Santa Fe, NM 87504
Larry Woodard, State Director
(505) 988-6316

Oregon : 825 NE Multnomah Street
P.O. Box 2965
Portland, OR 97208
Charles Luscher, State Director
(503) 231-6274

Utah : 324 South State Street
CFS Finan. Ctr. Bldg., Suite 301
Salt Lake City, UT 84111-2303
James M. Parker, State Director
(801) 524-3146

Wyoming : 2515 Warren Avenue
P.O. Box 1828
Cheyenne, WY 82003
Ray Brubaker, State Director
(307) 772-2111



DEPOSIT
OCT 16 1989
SHIPPED

Managing the Nation's Public Lands



Fiscal Year 1988

Managing the Nation's Public Lands

Fiscal Year 1988

This report to the Congress of the United States on the management of the Nation's public lands is submitted pursuant to requirements of the Federal Land Policy and Management Act of 1976 and covers the period from October 1, 1987, through September 30, 1988.



BLM-AA-GI-89-008-4830

A Message from the Director . . .



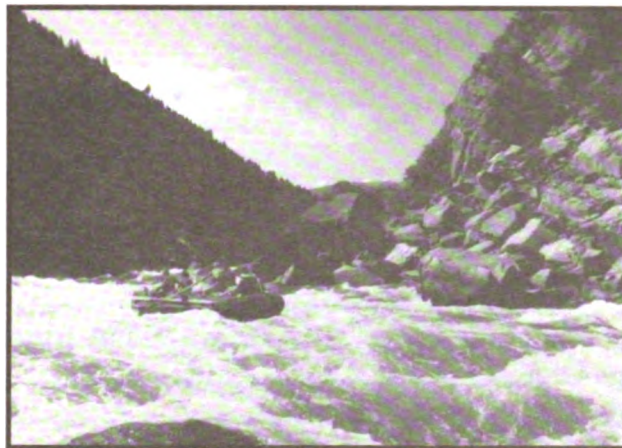
I am pleased to present this report on the accomplishments of the Bureau of Land Management for Fiscal Year 1988 — my last full year as Director of this agency.

This report covers the Fiscal Year ending Sept. 30, 1988. Since then, a number of auxiliary activities have evolved. It is important to bring you up-to-date on the following significant occurrences:

- *National Wildlife Federation Lawsuit (NWF)* — As discussed in the Renewable Resources chapter, the preliminary injunction granted to NWF in 1986 remained in effect during Fiscal Year 1988, affecting approximately 180 million acres of land and 10,000 lands and minerals actions on BLM public lands. However on November 4, 1988, Judge Pratt vacated the preliminary injunction and dismissed the case because the NWF lacked standing to file suit. On November 14, 1988, the NWF appealed Judge Pratt's order and asked that the preliminary injunction be reinstated pending appeal. On June 20, 1989, the Court of Appeals, District of Columbia Circuit, reversed Judge Pratt's decision saying the NWF affidavits were factually sufficient to support its standing. The preliminary injunction was NOT reinstated. The District Court was ordered to address NWF's claims and resolve the lawsuit. BLM is presently consulting with the U.S. Solicitor's Office and Department of Justice on the next course of action.
- *New Fire Policy* — Following the severe 1988 fire season, an interdepartmental Fire Policy Review Team was formed to examine fire policy nationwide for the Departments of Interior and Agriculture. The conclusion of the team, presented in December 1988, was that while the basic objectives of federal fire management policies are sound, the policies themselves need to be refined, strengthened, and reaffirmed. Pursuant to the direction of Secretaries Lujan and Yeutter, all of the affected agencies are currently evaluating their fire management plans in light of specific improvements recommended by the team. This evaluation will include public involvement or comment. Until these plans have been revised or reaffirmed, suppression action will be taken on all wildfires on public lands.
- *Desert Tortoise* — BLM administers 48 million acres of desert tortoise habitat, as described in the Renewable Resources chapter. This summer, the Natural Resources Defense Council, Environmental Defense Fund and the Defenders of Wildlife petitioned the Secretary of the Interior to use his emergency listing authority under Sec. 4 of the Endangered Species Act to list the Desert Tortoise. On July 31, 1989, the U.S. Fish and Wildlife Service emergency-listed the desert tortoise in the Mojave Desert, which is all wild tortoises north and west of the Colorado River in the states of California, Arizona, Utah and Nevada. The listing will be in effect for 240 days, during which time the Fish and Wildlife Service will proceed with a formal listing process for the species.

It is with a sense of accomplishment that I am turning over the directorship of the Bureau of Land Management to Cy Jamison. Although I will miss the challenge of multiple-use decisionmaking, I am pleased to leave the leadership of this agency to a high-caliber individual such as Cy. I am grateful to have had the opportunity to work with all the employees of the BLM, and all the other individuals and organizations who take an interest in our nation's natural resources. It is to all of you that I owe my successful tenure as BLM Director for the past 8 years.

Robert F. Burford



BLM MISSION STATEMENT

The Bureau of Land Management is responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield — combination of uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural scenic, scientific and cultural values.

DEPARTMENT OF THE INTERIOR MISSION STATEMENT

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protection of our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. Administration.

Table of Contents

Introduction	1
Historical Perspective	1
The Federal Land Policy and Management Act	1
America's Resources	2
Multiple-Use Management	2
Organizational Structure	3
Energy and Minerals Programs	4
Oil and Gas	4
Geothermal	5
Coal	7
Oil Shale	9
Solid Leasable Minerals	9
Mineral Material	10
Mining Law Administration	10
Hazardous Materials Management	11
Land Programs	12
Lands	12
Rights-of-Way	13
Withdrawals and Review	13
Alaska Lands	14
Cultural Resources	14
Wilderness Resources	15
Recreation	16
Renewable Resources Programs	17
Wildlife and Fisheries Habitat	17
Forestry	19
Wild Horses and Burros	20
Rangeland Resources	22
Soil, Water, and Air	23
Pest Control	23
Riparian Areas	24

Table of Contents

Support Services	25
Engineering Services	25
Planning	25
Fire	26
Aviation	27
Law Enforcement and Resource Protection	27
Cadastral Survey	28
Volunteers and Other Contributed Services	29
Information Resources	31
General Administration	34
Management and Productivity	34
Procurement	34
Property Management	35
Personnel Management	35
Financial Management	36
Appropriations and Expenditures	36
BLM Funding	36
Management of Lands and Resources	37
O& C Grant Lands	40
BLM Organizational Chart	42
Public Lands in the Western States	43
BLM State Office Directory	44

Introduction

Historical Perspective

In the last half of the 18th century and the first half of the 19th century, the United States Government acquired most of the land west of the Appalachian Mountains, eventually owning more than 1.5 billion acres of public domain -- lands that had never been in private ownership. Although the Federal Government has since titled most of this acreage to private citizens, industry, and State and local governments, some of the public domain lands were dedicated to establish the National Parks, National Forests, National Wildlife Refuges, military compounds, and other government facilities. However, approximately 270 million acres -- about one-eighth of the Nation -- remain today as public lands, which are managed by the Bureau of Land Management (BLM) for multiple uses. In addition, BLM also manages the mineral estate underlying another 300 million acres of lands administered or owned by other agencies or private interests. Most of this acreage is located in the western states, including Alaska, although small parcels are scattered across the eastern states.

In 1812, Congress established the General Land Office to administer the public domain, with the primary purpose of passing public domain lands into private ownership.

The passage of the Taylor Grazing Act in 1934 and establishment of the U.S. Grazing Service provided for active range management on the public domain, but this was seen as interim management of the lands pending their final disposal into nonfederal ownership.

In 1946, the Presidential Reorganization Plan No. 2 merged the Grazing Service with the General Land Office to create the Bureau of Land Management within the Department of the Interior. BLM became responsible for managing all the resources on the Nation's public domain lands; however, with more than 2,000 unrelated and often conflicting laws pertaining to the public domain, the agency had no unified legislative authority to manage those lands.

The Federal Land Policy and Management Act

When Congress enacted the Federal Land Policy and Management Act of 1976 (FLPMA), it established a coherent legislative mandate for managing the public lands and made BLM a true multiple-use agency. The law recognized that the public lands are a national asset, providing goods, services, and vast natural resources for millions of Americans:

***. . . Congress declares that it is the policy of the United States that . . .
the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use . . .***

***the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands . . .
(FLPMA, Section 102[a][8] and 101[a][12])***

America's Resources

FLPMA provides a clear-cut policy that most public lands are to be retained in Federal ownership and managed by BLM under a concept of multiple use for all Americans, with the full participation of the public and a careful balancing of the interests of competing users. Today BLM manages a multitude of assets for the American public. They include:

- about 1.4 billion barrels of proven oil reserves;
- approximately 12.5 trillion cubic feet of proven natural gas reserves;
- 10 million animal-unit months of forage to support about 4.3 million head of domestic livestock;
- the major portion of the undiscovered but geologically predictable domestic deposits of aluminum, antimony, beryllium, bismuth, cadmium, chromium, cobalt, copper, fluorspar, lead, manganese, mercury, molybdenum, nickel, platinum group metals, silver, tungsten, and vanadium;
- almost 8 million acres of commercial forest land with a producing capacity of about 1.4 billion board feet each year;
- about 80 percent of the Nation's oil shale;
- more than 350 designated areas of critical environmental concern;
- all 11 of the Nation's major tar sand sites;
- thousands of unique recreational areas, including 32 Wild and Scenic Rivers, 22 National Trails, 472 developed and semi-developed recreation sites including 471 day-use units and 6,749 family camping units, 65,000 miles of roads suitable for recreation travel, 4.2 million acres of lakes and reservoirs, and thousands of areas open to a wide variety of recreational uses;
- about one-third of the Nation's coal supply;
- more than 465,000 acres of designated wilderness in 25 areas and more than 25 million acres under study for possible designation;
- some 35 percent of the Nation's uranium reserves;
- 186 archaeological and historical listings in the National Register of Historic Places comprising more than 3,000 historical and archaeological properties that have nationally significant values;

- world class deposits of phosphate, sodium, lead, zinc, and potash;
- habitat for one out of every five big game animals in the United States, including many caribou, brown and grizzly bears, desert bighorn sheep, moose, mule deer, and antelope;
- nearly 85,000 miles of streams containing trout, salmon, and other sport fish — enough to encircle the Earth three and one-half times;
- prospective sources of geothermal energy on more than 55 million acres, plus 2 million acres of known geothermal resource areas; and
- approximately 96 percent of all wild horses and burros managed, protected, and controlled under the Wild Free-Roaming Horse and Burro Act of 1971.

Multiple-Use Management

BLM manages all the Nation's public lands to meet the needs and desires of the American public. The magnitude and value of these resources frequently lead to conflicting demands and uses for the public lands. The FLPMA mandate for multiple-use management is BLM's most powerful tool for reconciling the differences of opinion about how the public



lands are to be managed. Multiple-use provides for the development of needed resources, while protecting other resource values from inadvertent damage or destruction. Through a planning, decision making, and management process that balances alternative uses and involves the public at all steps, BLM can provide opportunities for many different uses of the public lands and ensure that its many resources will remain available to the public in the future.

American citizens can play a critical part in public land management — today and into the future. How Americans deal with the public lands today and tomorrow will determine what those lands will offer on BLM's 50th, 80th and 100th birthdays. BLM encourages all citizens to learn more about public lands, to become involved in their management, and to enjoy those lands.

Organizational Structure

The BLM's national office is in Washington, D.C. In addition, there are 12 state offices, 58 district offices, and 140 resource area offices. The BLM has about 9,650 employees, most of whom work in field offices in the West. Multiple-use management requires many skills and talents. Foresters, range conservationists, wildlife biologists, archaeologists, surveyors, engineers, recreation specialists, and many other disciplines are needed to care for and manage the public lands.

The following pages provide an overview of public land management during Fiscal Year 1988. Additional information about BLM and the public lands is available from BLM headquarters or local offices.



Energy and Minerals Program

Oil and Gas

Oil and Gas Leasing

The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947, as amended, give the Bureau of Land Management authority to issue mineral leases on about 600 million acres of public lands including national forests and private lands where mineral rights have been retained by the Federal Government. The oil and gas leasing program underwent significant modifications during Fiscal Year 1988 upon the passage of the Federal Onshore Oil and Gas Leasing Reform Act of 1987. Under this Act, all public lands that are available for oil and gas leasing must first be offered through a competitive leasing process whereby BLM State Offices offer oil and gas parcels through oral auctions. Parcels that are not sold at these auctions are then available for noncompetitive leasing for a 2-year period. The Act became effective on December 22, 1987, and Fiscal Year 1988 was a transition year when grandfathered applications were processed under the old procedures, while new offers were handled under the new leasing system.

Oil and gas leasing activity grew significantly in Fiscal Year 1988. The number of leases issued was 20 percent higher than in Fiscal Year 1987 and the total acreage leased was 56 percent greater. However, at the end of Fiscal Year 1988 there were 10 percent fewer

leases in effect and 3 percent less acreage under lease than at the beginning of the year. This was due in part to large numbers of lease relinquishments. In other words, lessees were trading old leases for new leases in large volumes in Fiscal Year 1988.

Oil and Gas Operations

BLM is responsible for the inspection of drilling and production operations on Federal leases to ensure compliance with regulations for production, storage, measurement, transportation, or sale of oil and gas from Federal onshore and Indian leases.

As of September 30, 1988, there were approximately 55,500 producible completions, that is, wells demonstrated capable of producing oil and gas in paying quantities, on Federal onshore and Indian leases. During Fiscal Year 1988, there were 988 producible wells completed.

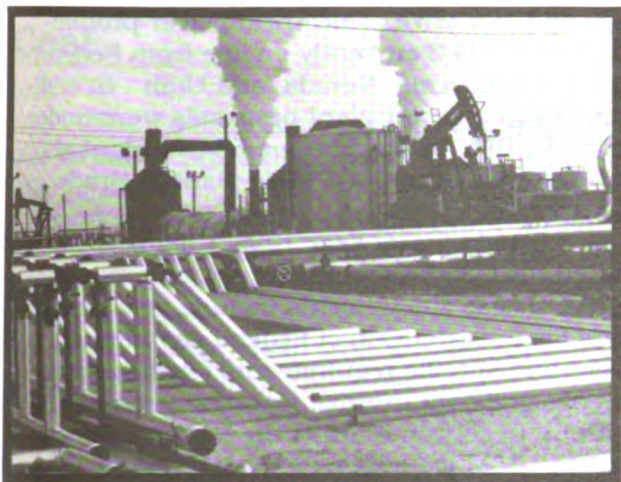
During Fiscal Year 1988, onshore oil and gas leases generated about \$638 million in bonus, rent, and royalty payments to the Federal Government. Fifty percent (or, in the case of Alaska, 90 percent) of this revenue is returned to the States where production occurs. Another Department of the Interior agency, the Minerals Management Service, collects and distributes these receipts.

A significant event in administering oil and gas operations on federally supervised leases this fiscal year was the issuance of final regulations to implement the Federal Onshore Oil and Gas Leasing Reform Act of 1987. These

Fiscal Year 1988 Oil and Gas Leases

	<i>Leases</i>	<i>Acres</i>
Competitive	2,628	2,000,192
Noncompetitive:		
<i>Over-the-Counter</i>	2,079	3,827,671
<i>Simultaneous</i>	8,699	11,541,117
Total	79,338	69,494,511

Leases in Effect as of 9/30/88



regulations went into effect June 15, 1988, and provide that the Secretary of Agriculture shall regulate all surface disturbing activities on Forest Service lands, conducted pursuant to any lease issued under the 1920 Mineral Leasing Act. The regulations also prohibit the Secretary of the Interior from issuing an oil or gas lease or approving the assignment of any such lease to any entity that has failed or refused to comply with reclamation requirements for any prior lease.

BLM is developing a series of 9 Onshore Oil and Gas Orders. Order No. 2, Drilling Operations; Order No. 3, Site Security; Order No. 4, Measurement of Oil; Order No. 5, Measurement of Gas; Order No. 6, Hydrogen Sulfide Operations Operations; Order No. 7, Disposal of Produced Water; Order No. 8, Well Workover/Completion/Abandonment; and Order No. 9, Waste Prevention/Beneficial Use, are expected to be published during Fiscal Year 1989. Order No. 1, Approval of Drilling Operations, was published in 1983.

Section 205 of the Federal Oil and Gas Royalty Management Act (FOGRMA), provides that the Secretary of the Interior may delegate all or part of the authority for inspection and investigations of oil and gas lease sites to State governments. The regulations for delegations of authority went into effect August 17, 1987. A few States have expressed interest, but no agreements have been established.

Section 202 of FOGRMA provides for cooperative agreements with Indian tribes to perform inspection and enforcement activities on Indian leases. Proposed regulations for Section 202 are expected to be published in the Federal Register in Fiscal Year 1989. There are currently two funded cooperative agreements, one with the Ute Mountain Ute Tribe in Colorado, the other with the Navajo in New Mexico.

During Fiscal Year 1988, trainees from the Ute, Navajo, and the Bureau of Indian Affairs attended courses in BLM's inspector training program. BLM also provided opportunities for trainees from other Federal agencies and States whenever they could be accommodated.

The low oil price situation that began in 1986 continued through 1988. For this reason, BLM extended the suspension of production requirements on stripper/marginal well leases for another year to prevent premature abandonment of oil and gas resources. As of September 30, 1988, there were 398 such leases in suspension, representing about 2 percent of the producible Federal leases.

BLM continued its aggressive program to identify all wells that are potentially draining Federal resources. A Drainage Policy Review Team was established and its recommendations are currently being implemented. A task force was established to revise the drainage manual/handbook and incorporate the recommendations of the Drainage Policy Review Team. The revised drainage manual/handbook was issued to the field offices as interim guidelines while the manual/handbook is being completed. BLM's computer-based Potential Drainage Detection System is being improved and enhanced for broader use in BLM.

Geothermal

Geothermal Leasing

The Geothermal Steam Act of 1970 provides BLM authority to issue leases on public, withdrawn and acquired lands administered by the Departments of the Interior and Agriculture. This Act was modified by the Geothermal Steam Act Amendments of 1988, which was enacted on September 22, 1988, and included provisions to expand areas that are closed to geothermal leasing and also to extend all geothermal leases beyond their primary term.

BLM conducts competitive geothermal lease sales for land located in Known Geothermal Resource Areas. In Fiscal Year 1988, competitive lease sales were held in California, Nevada and Utah, resulting in BLM issuance of 37 competitive leases covering 74,691 acres. During this time, 38 noncompetitive leases involving 67,196 acres were also issued.

At the end of Fiscal Year 1988, there were 233 competitive leases in effect on a total

of 406,356 acres (California, 140 leases on 232,662 acres; Nevada, 66 leases on 122,393 acres; Oregon/Washington, 8 leases on 16,825 acres; and Utah, 19 leases on 34,475 acres).

There were 531 noncompetitive leases in effect on a total of 939,581 acres (California, 128 leases on 181,569 acres; Nevada, 160 leases on 262,672 acres; Oregon/Washington, 225 leases on 463,060 acres; and Utah, 18 leases on 32,274 acres). This represents a 16 percent decline in the total number of leases and 10 percent drop in total acreage from Fiscal Year 1987 and is due primarily to the decline in oil prices which has reduced funds available for acquiring and holding geothermal leases by oil companies.

The Geothermal Steam Act Amendments of 1988 requires the Secretary of the Interior to submit a report to Congress on the presence or absence of significant thermal features in Crater Lake National Park by March 22, 1989. The Act also calls for a study of the impact of present and potential geothermal development on Yellowstone National Park.

California expects six more power plants to be operational or fully constructed in Fiscal Year 1989. In Nevada, proposals have been received to construct two additional plants.

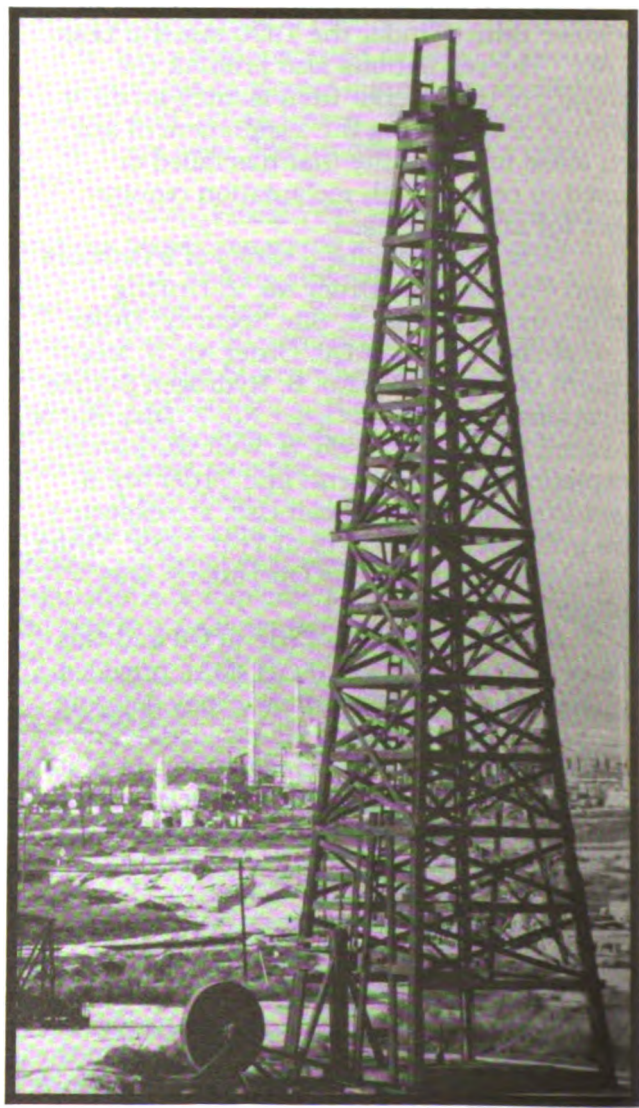
Geothermal Operations

During Fiscal Year 1988, geothermal leases and associated operations generated about \$17 million in royalty, bonus, and rental payments to the Federal Government. This included more than \$3 million in bonus bids for 23,000 acres of Federal lease rights in the Gals Mountain Known Geothermal Resources Area in northern California, indicating continued strong interest in the development of this alternative energy source. Like oil and gas, 50 percent of the lease-generated revenue is returned to the State where the leasing and production activity occurs.

Development of geothermal resources in the United States in Fiscal Year 1988 was concentrated on Federal leases. Construction of new geothermal electrical generating facilities on Federal lands continued at a fast pace in Fiscal Year 1988. Six new plants were at various stages of construction in California, including two 48 MWe plants on the China Lake Naval Weapons Center and two 37 MWe and one 20 MWe plant to Federal leases at East Mesa in the Imperial Valley. These plants will

soon add 190 MWe of electrical power production to the 934.3 currently on line from Federal leases in California, Nevada, and Utah. In addition, two new power plant proposals were under review by BLM in Nevada — a 5 MWe plant at Fish Lake Valley and a 7 MWe plant at Brady Hot Springs.

Late in Fiscal Year 1988, Congress passed the Geothermal Steam Act Amendments. These amendments include new provisions for the extension of Federal geothermal leases and specific requirements for the protection of significant thermal features, such as Old Faithful, in certain units of the National Park System. BLM is developing regulations to implement these amendments.



Coal

The Federal Coal Management Program was formally established by the Secretary of the Interior in 1979. The BLM Federal coal management responsibilities fall into two functionally distinct programs. Coal leasing encompasses all actions taken prior to issuance of a license or a lease. Coal operations encompasses all actions taken after issuance of a license or lease, including exploration.

The BLM serves as the focal point of the Department of the Interior's Federal coal management program and is responsible for ensuring coordination with State and local governments, industry, conservation groups, and other agencies concerned with the management of Federal coal. The Mineral Leasing Act, as amended, the Federal Land Policy and Management Act of 1976, and the Surface Mining Control and Reclamation Act of 1977, provide the statutory bases for the Federal coal management program.

The BLM manages one-third of the Nation's coal resources underlying 75.6 million acres of public lands, predominantly in the western states. These western Federal coal lands contain approximately 60 percent of the total western reserves. Most of these Federal coal reserves are concentrated in five western Federal coal production regions located in Colorado, Montana, New Mexico, North Dakota, Utah and Wyoming.

At the end of Fiscal Year 1988, there were 15.4 billion tons of recoverable reserves on 536 Federal coal leases. During Fiscal Year 1988, there were 122 producing Federal coal leases, which produced 187 million tons. In addition, there was one nonparticipating overriding royalty agreement for which royalty was

paid on approximately 0.5 million tons of production. The combined production represented 19.5 percent of the total United States production in 1988. Federal coal royalty revenues collected by the Department of the Interior totaled \$169.4 million in Fiscal Year 1988. Coal production on Indian lands totalled 22.3 million tons with royalties of approximately \$38.5 million in Fiscal Year 1988.

Coal Leasing

During Fiscal Year 1988, four of the five remaining Federal coal production regions were either decertified or proposed for decertification. Decertification of the Green River-Hams Fork, Uinta-Southwestern Utah, Fort Union, and San Juan River regions means that these four regions will use lease-by-application procedures rather than the more costly and time-consuming regional leasing procedures.

The decision to decertify was based on long-range market analyses and other factors that indicated that the forecasted demand for Federal coal in these regions was insufficient to justify the use of regional leasing procedures. The Powder River region is the only area still operating under the regional leasing procedures, although leasing activities there are presently suspended because of the lack of demand for additional leasing.

The Regional Coal Teams (RCTs) will be retained in the four decertified regions to advise BLM on lease-by-application and other coal-related activities and to assess coal-market conditions. Should the demand for Federal coal leasing in these regions increase in the future, the RCTs may recommend the return to regional leasing procedures.

Final nationwide guidelines for determining the adequacy of hydrologic data for Federal coal leasing had been prepared and were undergoing review at the end of Fiscal Year 1988.

In addition, 18 coal preference right lease applications (PRLAs) were either rejected by BLM or were withdrawn by the applicants. This brings to 91 the number of coal PRLAs remaining to be processed.

At the end of Fiscal Year 1988, there were 536 Federal coal leases covering 780,495 acres of Federal lands. In addition to these leases and PRLAs, six mining licenses and 11 exploration licenses are being administered by BLM.





Coal Operations

In the 68 years since the Mineral Leasing Act was enacted, more than 1.76 billion tons of coal have been produced from Federal lands. The market value of this coal was nearly \$17.8 billion on which royalties exceeding \$877 million have been paid to the U.S. Treasury. Since 1937, more than 392 million tons of coal have been produced from Indian lands. That coal was valued at more than \$4.1 billion and generated more than \$208 million in revenue for Indian Tribes and allottees.

The BLM has statutory and regulatory responsibility for oversight of coal mining operations on Federal and Indian lands. This responsibility includes providing technical assistance to Indian Tribes, allottees, and the Bureau of Indian Affairs on coal operations responsibilities including: preparing economic, resource, and mining assessments and analyses; evaluating exploration and mine plans; supervising exploration, development and abandonment of operations; recommending bonds; and conducting inspection and enforcement/production verification.

One responsibility on Federal lands is administering 19 logical mining units (LMUs). An LMU is a designated area from which the coal can be developed as a unit and as part of a single mining operation. An LMU may consist of Federal leases only or of Federal and non-Federal lands (including Indian lands), must be contiguous, and cannot exceed 25,000 acres in size. During Fiscal Year 1988, BLM approved three of these 19 LMUs and 11 LMU applications were being processed at the end of Fiscal

Year 1988. During Fiscal Year 1988, BLM processed 46 readjustments of lease terms and conditions, two suspensions of operations and production, and five record-title assignments on Federal coal leases.

The primary purposes of inspection and enforcement (I&E) are to: ensure compliance with the law, regulations, lease terms and conditions, exploration or mine plans, and all notices and orders; identify any trespass; and conduct production verification (PV). PV's primary goal is to verify the amount of coal being mined and to ensure that production is accurately reported, thereby ensuring that proper royalties are paid for the extraction of coal on Federal and Indian lands.

Implementation of national I&E/PV guidelines for coal and other solid minerals in Fiscal Year 1987 included formation of Solid Minerals Assistance Teams (SMATs) to help promote consistency and monitor compliance with the guidelines. During Fiscal Year 1988, the SMATs visited the State Offices in Montana, Wyoming, Idaho, and the associated field offices to review mine-specific I&E/PV plans, inspection procedures, and methods of production verification.

A Technical Procedures Review (TPR) of BLM procedures used in overseeing lessees that hold or acquire Federal mineral leases pursuant to the Mineral Leasing Act was conducted at both the Eastern States Office and the Utah State Office during Fiscal Year 1988. The objectives of the TPR were to: identify any

departures from existing statutes and regulations; highlight any problems with existing guidance; and develop ways in which the existing guidance could be improved.

The BLM is drafting proposed revisions to the coal operations parts of the coal management regulations (43 CFR Group 3400). Some revision is necessary to clarify issues that have arisen since the regulations were published in 1982. The primary areas of consideration are 43 CFR Part 3450 — Management of Existing Leases (lease readjustments, cancellations, and relinquishments); Part 3470 — Coal Management Provisions and Limitations (e.g., rent, royalty and bonding); and Part 3480 — Coal Exploration and Mining Operations (e.g., diligent development, continued operation, and advance royalty).

Three sections of the BLM manual were completed during Fiscal Year 1988. The sections address the following responsibilities for operations on Federal coal and solid mineral leases:

- 1) Bonds: This manual section sets out the procedure for establishing proper solid mineral bonds including bonding requirements, types of bonds, bond conversions, procedures for setting bond amounts, qualified sureties, and default and liability termination.*
- 2) Logical Mining Units: No previous BLM manual existed on this subject. The manual section contains the guidance for the formation and monitoring of LMUs including the requirements of: a 40-year mine-out; crediting of non-Federal production toward the Federal requirements of diligent development, continued operation, and advance royalty; and the 3-year Resource Recovery and Protection Plan submittal.*
- 3) Diligence Requirements: No previous BLM manual existed on this subject. This manual section provides policy and procedural guidance for provisions of Section 7 of the Mineral Leasing Act, as amended, regarding diligent development, continued operation, "forcemajeure" suspensions, advance royalty in lieu of continued operation, and the 3-year requirement for submittal of a Resource Recovery and Protection Plan.*

Oil Shale

The Mineral Leasing Act gives the Secretary of the Interior the authority to lease oil shale on Federal lands. BLM has the Federal management responsibility for 80 percent of the

oil shale resource concentrated in the Green River Formation in Colorado, Utah, and Wyoming. The reserves in this 25,000-square-mile formation are estimated to contain nearly 2 trillion barrels of shale oil. Approximately 731 billion barrels of oil could be recovered with current technology. However, given present technology, the cost of extracting the oil makes it noncompetitive against conventional energy sources.

The only two existing oil shale leases (tracts C-a and C-b in Colorado) were in suspension during Fiscal Year 1988. The lessees maintained the mines and related facilities and monitored the environmental effects while the leases were inactive.

Solid Leasable Minerals

The BLM supervises activities of lessees and permittees that explore, develop, and produce solid leasable minerals on Federal and Indian lands. At the end of Fiscal Year 1988, there were 540 Federal and 388 Indian leases comprising 749,290 acres, plus 119 prospecting permits covering 107,599 acres. In addition, there were 31 preference right lease applications covering approximately 42,699 acres. The combined production of solid leasable mineral commodities from Federal and Indian lands contributed approximately \$730 million to the Nation's gross national product. From Federal lands, this resulted in more than \$26 million in royalty revenues to the U.S. Treasury.

For Federal lands, more than 86 percent of the acreage and nearly 81 percent of the leases for solid leasable minerals involve the following: 1) potash, 1,859,470 tons with a royalty value of approximately \$3 million were produced from 215 leases covering approximately 347,604 acres in New Mexico, Utah, and California; 2) sodium, 3,598,288 tons with a royalty value of approximately \$12 million were produced (mostly soda ash) from 106 leases covering 135,980 acres in Wyoming, California, Nevada, Colorado, and New Mexico; and 3) phosphate, 4,292,800 tons with a royalty value of approximately \$3 million were produced from 116 leases covering 69,460 acres in Idaho, Montana, Utah, Wyoming, California, and Florida.

Twenty other Federal and Indian solid leasable minerals are listed in descending order of acreage: uranium in Arizona, New Mexico,

Washington, and Wyoming; lead/zinc in Missouri; copper in Arizona, Minnesota, Oklahoma, and Washington; sand and gravel in Arizona, California, Montana, Nevada, New Mexico, Oklahoma, Oregon, South Dakota, Washington, and Wyoming; tar sand in Utah; gilsonite in Utah; gold in Arizona, Idaho, and Washington; fluorspar in Illinois; limestone in New Mexico, Oklahoma, Utah, and Virginia; titanium and associated minerals in Minnesota; silica sand in Arizona, California, Nevada, and Oklahoma; feldspar in Georgia; clay in Alabama and Missouri; barite in Arkansas and Missouri; chat in Oklahoma; gypsum in California and New Mexico; asphalt in Oklahoma; tungsten in Nevada; bentonite in Wyoming; and quartz in California and North Carolina.

Other Federal and Indian leases include: amethyst in Georgia; garnet in Idaho; granite in Oklahoma; iron ore in Minnesota; olivine in North Carolina; quartz crystals in Arkansas; combined hydrocarbon leases in Utah; crushed stone in Washington; and dimension stone in Oregon.

Mineral Materials

BLM's mineral material program, sometimes referred to as the "salable minerals program," began with the passage of the Materials Act of July 31, 1949. In 1955, Congress amended this Act by specifying that common varieties of previously locatable minerals, such as sand and gravel and stone, were to be disposed of under the provisions of the 1947 Act. Since that time, BLM has disposed of mineral materials either by sale to the general public or by free-use permit to qualified government or non-profit entities, as provided in the Act.

In Fiscal Year 1988, BLM completed approximately 1,100 sales and free-use permits, representing materials valued at approximately \$4 million. For many western communities, the public lands continue to be the only source for mineral materials, which are used in energy and mineral development, construction and maintenance of transportation systems, and the expansion of communities and industries.

Mining Law Administration

The Mining Law of 1872, as amended many times in its 116-year history, serves as the statutory basis for the disposition of "locatable minerals" from the public domain. Federally

owned locatable minerals include valuable deposits of precious metals, base metals, industrial minerals (such as cement-grade limestone and bentonite) and uncommon varieties of building stone and other mineral materials. In addition, oil shale, which is now disposed of via the Mineral Leasing Act of 1920, may be held, worked, and patented under the mining laws if claim location and discovery of valuable deposits preceded 1920.

The self-initiation feature of the Mining Law continued to serve the Nation's mineral industry well, as shown by the responsiveness of mining companies exploring the public land to locate mining claims as the market for locatable mineral commodities demands. In recent years, increased prices for gold combined with refinements in mining methods have led to a mining claim boom on public lands in the West, particularly in Nevada, California, and Arizona. In Fiscal Year 1988, Newmont Gold Mines, located 40 miles west of Elko, Nevada, continued to surpass the Homestake Mine in South Dakota as the largest producing gold mine in the United States. In Fiscal Year 1988, 14 of the top 25 U.S. gold mines were on, or partially on, lands managed by BLM.

As increased interest in gold brought on by higher prices and a rebounding metals market caused greater activity, BLM continued to be challenged to provide for mineral development under multiple-use management while preventing any unnecessary or undue degradation of land to occur.



In Fiscal Year 1988, BLM accepted 182,543 mining claims and millsites for initial recordation under Section 314 of FLPMA. Annual filings of assessment work affidavits (or notices of intent to hold) served to hold 460,465 mining claims of record. Failure to file such documents annually is conclusive evidence of abandonment of the mining claim.

Under the surface management regulations administered by BLM, operators proposing to disturb the surface of public lands filed approximately 469 plans of operation (generally for disturbances of greater than 5 acres) and 2,034 notices (for lesser impacts) in Fiscal Year 1988. Reviews of the proposed activities ensure that no unnecessary or undue degradation of the public lands is likely to occur.

BLM continued in Fiscal Year 1988 to emphasize its responsibility to promptly adjudicate mineral patent applications, reject or contest invalid mining claims, and issue patent to those mining claimants demonstrating a discovery of a valuable mineral deposit. As a result, 5,549 acres of mineral land passed into private ownership as patented lode or placer mining claims. Under the millsite provisions of the mining laws, 365 acres of nonmineral land were patented for uses reasonably incident to mining and milling purposes.

Hazardous Materials

The Hazardous Materials Management Program's goals are the protection of public health, safety, and the environment, compliance with applicable laws, and the control of Federal liability.

The program is based on the requirement for compliance with the Resource Conservation and Recovery Act, as amended, which requires treatment, storage, and disposal of hazardous wastes; the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, which regulates cleanup of spills and abandoned waste sites; and other Federal and State laws that regulate the management of hazardous materials.

During Fiscal Year 1988, program activities for hazardous materials management continued in all BLM State Offices. Field officials were involved in 25 emergency hazardous waste cleanups on the public lands.

Other significant accomplishments included conducting land status assessments;

conducting inventories to identify, or confirm the presence of, hazardous wastes on public lands; providing safety training and material for field staff; working with the States to initiate further studies of appropriate sites; providing extensive policy, technical, and program assistance and support to other BLM program divisions on the hazardous materials aspects of their programs; and eliminating the backlog of sites requiring assessment and investigative analysis.

BLM completed 56 preliminary assessments and 21 site investigations in Fiscal Year 1988. A contract was signed in Fiscal Year 1988 for the preparation of a remedial investigation/feasibility study (RI/FS) on a site in New Mexico. It should be noted that BLM's potential liability for most sites will be that of the landowner and not as a generator of the wastes or facility operator. In a few cases, primarily mining sites, BLM will be an "innocent landowner" for purposes of the law, but it may still have cleanup responsibility for abandoned sites because the Environmental Protection Agency (EPA), by law, cannot expend Superfund monies to cleanup Federal property. This limitation on EPA makes it imperative for BLM to find viable, potentially responsible parties to clean up the problems which they created.

BLM supported the recently enacted amendment to Section 3 of the Recreation and Public Purposes Act. The amendment authorizes BLM to provide lands by patent to local governments for municipal solid waste land fills or other purposes that may result in the release of hazardous materials. This legislation assures that much needed landfill sites will be available at reasonable costs to small communities and that these communities rather than the Federal taxpayer will have responsibility for their operation and maintenance. It also assures that supervision of local waste sites will be handled by State and local governments and the EPA, entities that have the necessary expertise to handle waste sites that may contain hazardous materials.

In Fiscal Year 1988, BLM signed a \$320,000 contract with the National Academy of Engineering to evaluate BLM's Hazardous Materials Program at its 5-year mark. This evaluation will look at the hazardous materials laws and problems of the 1990s and the organizational resources BLM has to deal with these issues.

Land Programs

Lands

During Fiscal Year 1988, BLM's lands program focused on:

- *State, large landowner, and high public interest land exchanges;*
- *responding to State and local government requests for acquisition or use of public land for community expansion, recreation, and public-purpose activities;*
- *collection of data and entry into the Automated Lands and Minerals Records System (ALMRS);*
- *resolving cases of unauthorized use of public lands;*
- *reducing case backlogs;*
- *processing of desert land entry applications and FLPMA Section 203 land sales; and*
- *amending the Recreation and Public Purposes Act to allow BLM to deal more effectively with the problems of waste disposal on public lands.*

Land exchanges (trading public land for State or private land) provide opportunities to simplify ownership patterns, improve respective management programs, acquire lands with high public values at little or no cost to the Federal Government, and meet both public and private needs. Consistent with the Administration's vision of Federalism — the return of authority and discretion to the local level of government — BLM's land exchange program helps State and local communities better manage their own lands for the betterment of their citizens. The land exchanges increase local control of resources and lands needed to be responsive to the needs of the people to support their own growth and well-being.

The amount of acreage conveyed through exchanges has climbed steadily. In 1981, nearly 49,048 acres were conveyed, as compared to Fiscal Year 1988, when 67 exchanges conveyed 233,434 acres of public land to State and private interests in return for 378,185 acres.

The Recreation and Public Purposes Act authorizes the Federal Government to lease or convey lands at no cost to State and local governments for public recreation purposes, and to lease or sell lands to government and nonprofit entities for other public purposes at less than fair market value. In Fiscal Year 1988, BLM processed 135 applications under this act.

Automation of BLM's land and minerals records is progressing rapidly to meet a 1993 completion deadline. Automation of these records, plus inputting survey information and resource data, make up the BLM's Land Information System (LIS). This system will provide accurate, up-to-the-minute information to BLM managers and the public regarding public land management. It is estimated that the LIS involves more than 1 billion pieces of information.

Public lands trespass continues to be a problem. During Fiscal Year 1988, BLM worked on and closed 964 trespass cases.

Processing of Desert Land Entry Act applications constituted a major workload in Idaho and Nevada during Fiscal Year 1988. BLM processed 176 cases during the year.

BLM continued to make selected public lands available for sale to allow for community expansion and other purposes. Most of the land sold consisted of small, isolated parcels. Tracts are carefully selected through BLM's land-use planning process to ensure that sale is appropriate. During Fiscal Year 1988, 2,957 acres of public land were offered for sale at the appraised fair market value.

A major accomplishment in Fiscal Year 1988 was passage of legislation amending the Recreation and Public Purposes Act. The amendment allows the Secretary of the Interior to patent Federal lands to local governments



to patent Federal lands to local governments with a limited reverter provision which provides that if the lands are not used as specified in the application, within 5 years of the date of conveyance, the lands may revert to the Federal Government. However, the patent also contains a provision requiring that under no circumstances would the lands revert to the Federal Government if they are used for solid waste disposal purposes. With the consent of the patentee, and where patents have already been issued with the reverter provision and the lands are found to have been used for solid waste disposal or for any other purpose that may result in the disposal of hazardous substances, the Secretary may renounce the reverter provision at no cost to the local government. These provisions would place full responsibility for landfill sites management on the local community and the State.

Acquisitions

During Fiscal Year 1988, BLM completed 196 acquisition actions of land or interests in land in support of its resource programs. This includes 91 road easements to provide public access to public land. The remaining acquisitions were for administrative access and projects which enhance public land management.

Land and Water Conservation Funds were used to acquire 21 parcels of land and eight conservation easements.

Rights-of-Way

During Fiscal Year 1988, BLM authorized 2,854 rights-of-way under various authorities, including the Federal Land Policy and Management Act. Diverse uses of the public lands requiring rights-of-way authorization include pipelines and related facilities, communication sites, hydropower sites and facilities, roads, equipment storage sites, and others.

Withdrawals and Withdrawal Review

During Fiscal Year 1988, the Secretary of the Interior approved 16 withdrawals encompassing 15,617 acres to protect archaeological, historic, paleontological and recreation sites, natural areas, administrative sites, a seed

orchard, a fish hatchery, a radio relay site, and a dam and reservoir site. Of the 15,617 acres, nearly 10,000 acres were withdrawn to protect the recreational and scenic values of the Lower Salmon River in Idaho.

The Secretary also approved eight revocations encompassing 24,633 acres. All but 170 acres were in the State of Alaska to allow selection of the land by the State of Alaska or Native groups. The remaining action revoked a Bureau of Reclamation withdrawal after January 1, 1981.

In addition, the Secretary modified one withdrawal in Alaska to allow for selection and conveyance of the oil and gas rights to 678 acres of public land to the State of Alaska.

On July 15, 1985, the National Wildlife Federation filed suit in the U.S. District Court challenging the withdrawal and classification processes and actions taken by BLM since January 1, 1981, under Sections 202(d), 204(a), and 204(l) of FLPMA. A preliminary injunction was issued February 10, 1986, specifically prohibiting the Secretary of the Interior from modifying, terminating, or revoking, in full or in part, under FLPMA, any withdrawal or classification that was in effect on January 1, 1981; or taking any action inconsistent with the specific restrictions of any withdrawal or classification in effect January 1, 1981. Exceptions to the injunction included revocations in Alaska to permit State or Native selections. Thus, the modification and revocations identified above all fell outside the scope of the preliminary injunction.

On January 25, 1988, the Department of Justice filed a Petition for Rehearing En Banc with the U.S. Court of Appeals for the District of Columbia Circuit. On April 29, 1988, a Court of Appeals denied the petition and expressed its dissatisfaction with District Court Judge Pratt's failure to proceed in a timely manner with plenary consideration of the merits of the case and directed the District Court to "proceed with dispatch."

The continuation of the preliminary injunction (PI) during Fiscal Year 1988 severely affected BLM, other Federal agencies and third parties. The PI prevented returning land encompassed in obsolete withdrawals to multiple-use management for completion of land exchanges, some of which were environmentally enhancing, land sales, and mining activities. Congress did provide relief for several specific situations by enacting exemptions to the PI.

Alaska Lands

In Fiscal Year 1988, BLM in Alaska patented more than 2.7 million acres of land to the State of Alaska under the Statehood Act, bringing the total acres transferred to approximately 82 million. Title to about 2 million acres was transferred to Alaska Native corporations in Fiscal Year 1988 to meet the requirements of the Alaska Native Claims Settlement Act. The Native regional and village corporations have received approximately 35.3 million acres to date. The conveyance of lands to the State and to Native corporations satisfies one of BLM's top objectives. In addition, continued efforts to transfer individual parcels of land to Alaska Natives successfully led to more than 205 certificates of ownership being issued under the Native allotment program.

During the fiscal year, BLM provided Congress with information on the impact of submerged lands on current State and Native land selections. A bill was passed on the submerged lands issue. A report to Congress is due in August 1989.

Field surveys were completed for 650 Native allotments, small tracts and 1,340 miles of rectangular net. Work continued allowing placer mining to continue in the State. A special team was created to develop court-mandated Environmental Impact Statements (EIS) for four watersheds affected by placer mining. Three EISs have been prepared; the fourth is expected in January 1989. In August 1988, the EIS for the development of a gas pipeline from the North Slope south to tidewater was completed and a right-of-way is scheduled to be issued in October 1989. Planning efforts for the Central Arctic Management Area/Utility corridor continued with public hearings and draft review. Due to comprehensive discussions with State of Alaska representatives concerning possible land selections within this planning area and other areas of Alaska, further work on this Resource Management Plan (RMP) was deferred for the remainder of Fiscal Year 1988. A final RMP is expected in June 1989.

Cultural Resources

The BLM is responsible for managing the Federal Government's largest, most varied, and scientifically most important body of cultural resources. No other agency rivals BLM in sheer quantity, diversity, or importance of

cultural resources, known or projected. To date, approximately 143,000 archaeological and historic properties have been recorded on public lands. These properties have been found on the nearly 8.5 million acres of public land inventoried, which represents less than 3 percent of lands administered by BLM. Taking into account all BLM lands, site totals are likely to run well into the millions. No other agency comes close to BLM in number of sites.



Cultural resources are protected by numerous statutes, most significantly FLPMA, the National Historic Preservation Act of 1966 (NHPA), and the Archaeological Resources Protection Act of 1979 (ARPA). These laws establish the primary objectives of BLM's cultural resource program, which are the identification of the physical evidence of at least 10 millennia of human occupation in the western hemisphere, the evaluation of the relative importance of these physical manifestations, and the determination and protection of the appropriate uses of those resources.

In Fiscal Year 1988, one of the BLM's top priorities in the cultural resource management (CRM) program continued to be protecting our Nation's fragile cultural legacy from looting and destruction. Archaeological Resources Protection Act Plans were prepared in each BLM State, describing the current condition of archaeological resources, protective and public awareness measures undertaken to date, and future measures proposed.

In Fiscal Year 1988, the BLM devoted roughly a third of its operating budget to site management and protection. The money was used for a combination of physical protection and administrative measures, along with an aggressive public education/awareness program. Approximately 3,000 cultural properties

received some direct, site-specific protection, such as being signed, fenced, maintained, interpreted, stabilized, patrolled or closely monitored on a regular basis. Among the sites receiving protection were the five world class Chacoan Outliers in New Mexico recently placed on the World Heritage List. In addition, another 70,000 cultural properties and 5.8 million acres received some broad form of protection through a combination of aerial, foot, horseback, and/or vehicular patrol and surveillance.

In Fiscal Year 1988, BLM augmented the number of rangers and expanded their role in site patrol and surveillance. Site stewards were also used to monitor sites and areas where looting is occurring. In addition, sites were protected through administrative withdrawal, cooperative protection agreements, such as with the Arizona National Guard for aerial surveillance of sites, and cooperative management agreements with universities, historic preservation groups, volunteer organizations, and nonprofit groups. The cooperative management agreements were used for a broad range of identification, recordation, study, protection, preservation, stabilization and interpretation projects. It is estimated that approximately 18 work years of contributed time has been provided to the BLM for the benefit of the cultural resource program through volunteers/cooperative management agreements.

In the realm of public awareness and education, BLM was an active participant in "Archaeology Week" programs in Arizona, New Mexico, and Utah. In addition, BLM participated in other regional anti-looting programs such as interagency archaeological vandalism task forces found in New Mexico, Utah, and Oregon. BLM also participates as a full partner in the Society for American Archaeology-sponsored anti-looting initiative, titled "Saving the Past for the Future."

In Fiscal Year 1988, far more than half of BLM cultural resource staff time was devoted to compliance with section 106 of the National Historic Preservation Act of 1966 in response to approximately 8,000 land use project applications. This allowed BLM archaeologists to learn much about previously unknown or poorly understood areas.

To ensure that section 106 review was completed in a timely and responsive manner on the large number of land use project applications, BLM issued approximately 350 cultural resource use permits to individuals, consulting firms, and educational institutions. These

entities completed various cultural resource inventories and mitigation work on BLM-licensed or approved projects.

Wilderness Resources

BLM now manages 25 wilderness areas in eight States, totaling approximately 465,000 acres. The total includes two new areas in New Mexico designated in December 1987 of 82,000 acres, which are managed on an interagency basis between the National Park Service and the BLM, and are also integral units as part of a National Monument and National Conservation Area.

By the end of Fiscal Year 1988, BLM had completed all of the field work in wilderness study areas and began preparation of the final wilderness study reports that serve as the major documentation for the statewide wilderness reporting package. An additional 21 final environmental impact statements for study areas were filed with the Environmental Protection Agency during Fiscal Year 1988; the remaining EISs to be completed during Fiscal Year 1989.

BLM revised and updated the Interim Management Policy Guidelines for wilderness study areas. The guidelines are part of the BLM permanent directives system and specify what activities may or may not be undertaken in study areas. BLM also issued permanent guidance on mapping standards and policies for fish and wildlife activities for BLM-designated wilderness areas.

All work on the statewide reporting package for California has been completed and is scheduled for approval by the Secretary of the Interior and submission to the President and the Congress in Fiscal Year 1990. Additionally, work was completed on a specially mandated Congressional study in Alaska, and a recommendation for designation of a 41,000-acre area on the Nigu River was approved by the Secretary of the Interior and will be submitted to the President and the Congress in December 1988.

Congress has not acted on a package of 30 areas submitted by the President in April 1985. An additional area, comprising 5,000 acres in the State of Washington has also been submitted to the President with a recommendation as unsuitable for wilderness and is to be released to full multiple-use management activities. This area is the only BLM study area in the State of Washington.

Recreation

Fiscal Year 1988 was an exciting year for the BLM recreation program. On March 1, 1988, the BLM Director approved the Bureau's new long-range recreation policy: *Recreation 2000: A Strategic Plan*. With the release of *Recreation 2000*, the BLM has taken an important step in revitalizing its outdoor recreation program to meet anticipated demands. The plan is designed to make recreation an equal partner within the family of multiple-use management. It provides a clear statement of BLM recreation management policies and goals. It describes the policies that will guide the BLM and the issues BLM, as well as the public land users, face. The plan also highlights where BLM will concentrate its efforts in agency programs related to recreation.

BLM's general recreation policy states that the BLM will ensure the continued availability of public land for a diversity of resource-dependent outdoor recreation opportunities while maintaining its commitment to managing the public lands as a national resource in harmony with the principle of balanced multiple use.

In Fiscal Year 1988, the draft plan was completed for the San Pedro area in Arizona, which was acquired in a land exchange in 1985. This major recreation area was opened to the public in 1989. In addition, management of the California Desert Conservation Area continued to be improved with the addition of 26 law enforcement rangers. Also in Fiscal Year 1988, the 266,690-acre El Malpais National Conservation Area was designated.

A major land exchange was completed in September in the Red Rock Recreation Lands area of Nevada. The exchange involved the Summa Corporation and the Nature Conservancy. Through the efforts of the Nature Conservancy, BLM acquired 4,863 acres through exchange and purchased an additional 439 acres using funds from the Land and Water Conservation Act. Summa Corporation acquired, through exchange, 3,768 acres in the Las Vegas valley. The lands acquired by BLM contain high-value recreation and cultural resources in and adjoining the Red Rock Recreation Lands area. The purpose of the exchange was to block up land within the recreation area and protect adjacent land from development that could have affected the resources within the recreation area. The entire transaction was estimated to be worth \$2.8 million.

Public lands accommodated more than 57.8 million recreation visits, an increase of 3 percent over Fiscal Year 1987, and more than 461 million visitor hours, representing a 10 percent decrease from the previous year. During Fiscal Year 1988, 349,500 volunteer hours from 5,452 volunteers were contributed to the recreation program with a savings to the Federal Government of more than \$216 million.

Overall during Fiscal Year 1988, 64,852 camping and day-use permits were issued, a 16 percent increase from Fiscal Year 1987. An additional 12,210 special recreation permits were issued, a 17 percent increase over the previous year. More than \$1.46 million in fees were collected. This represents a 23 percent increase in camping and day-use fees collected, and a 10 percent increase in fees collected in the special recreation permit program.

Through Fiscal Year 1988, approximately 75.5 million acres of public land were designated open to off-road vehicle use (subject to special operating requirements); approximately 50 million acres were designated for limited off-road vehicle use; and approximately 2.5 million acres were closed to off-road vehicle use. An additional 51.9 million acres are currently awaiting final designation with 20.7, 20.8, and 10.4 million acres proposed for open, limited, and closed designation, respectively. There are 103.6 million acres remaining undesignated.



Renewable Resources Programs

Wildlife and Fisheries Habitat

Wildlife habitats on BLM-administered lands provide homes to more than 3,000 species of mammals, birds, reptiles, fish, and amphibians. No single Federal or State agency manages more fish and wildlife habitat than the BLM. Cooperation between State and other Federal agencies having primary responsibility for wildlife and fisheries population management is essential to the success of the BLM's program.

Fish and Wildlife 2000

Fiscal Year 1988 marked the first full year of implementation of *Fish and Wildlife 2000*, the BLM's strategic plan for fish and wildlife resource management on the public lands through the year 2000 and beyond. Already this plan has brought clearer focus to the BLM's wildlife and fisheries program, resulting in a broader consensus in program direction, and providing a more businesslike approach to the fish and wildlife resources program.

During Fiscal Year 1988 the following implementation actions were completed:

State Fish and Wildlife 2000 — Work was initiated on BLM state-level *Fish and Wildlife 2000* plans which will provide a blueprint for BLM state-level programs.

Human Resource Development — Began implementing recommendations of an interdisciplinary team of biologists, managers and personnel experts to enhance career development and job enrichment of BLM biologists, because most have been in place several years.

Increased Private Investments — Greater attention to the development of partnerships with a host of organizations has resulted in doubling investments from sportsmen's groups and others (from \$1 million in Fiscal Year 1986 to more than \$2 million in Fiscal Year 1988). This also has enabled BLM to better capitalize on the Challenge Cost Share funds made available from Congress. For example, this fiscal year Memorandums of

Understanding were signed with Rocky Mountain Elk Foundation, Quail Unlimited, National Wild Turkey Federation, Foundation for North American Wild Sheep and Trout Unlimited. Threatened/Endangered Species (T/E), Desert Tortoise — BLM administers 48 million acres of tortoise habitat or about 63 percent of the U.S. habitat. In 1986 a team of BLM biologists and managers plus a representative of a State wildlife agency was established to formulate an approach to ensuring viable populations of desert tortoises. In 1987, the BLM Director endorsed the team's report and recommendations. Recently, a rangewide management plan for the four-state area involving California, Nevada, Utah and Arizona, was approved by the Director. In addition, a Management Oversight Group was created to guide future efforts and better ensure interagency coordination of research, studies and on-the-ground management.

Threatened and Endangered Fisheries Habitat Management — Currently about 100 species of fish federally listed as T/E or as candidate species can be found on BLM lands. A team was established to formulate better strategies for dealing with these species in a proactive manner. The report and recommendations of that team will be available in early Fiscal Year 1990.

Special Status Plants — About 45 listed T/E plants and 650 candidate plant species are found on BLM lands. Proactive management of these species poses significant challenges. In Fiscal Year 1988 plans were made to establish a team to formulate strategies for implementing the *Fish and Wildlife 2000* objectives as they relate to plants. This team should become operational in early 1989.

Fisheries

Anadromous Fish Habitat Management — BLM administers more than 13,000 miles of habitat in the Pacific Northwest and Alaska for salmon and steelhead. In recognition of the \$40 million commercial value and 1.5 million days of recreational fishing for these species, a team of biologists and managers developed strategies for implementing the anadromous



fish objectives in *Fish and Wildlife 2000*. The team outlined a 12-year program costing about \$25 million with returns of 2.5 times investment costs, not counting important social, biological, and scientific values to be realized. BLM is beginning to implement the actions in that plan within the constraints of the budget.

Fisheries Assessment and Strategy Development – A team which includes directors of two State fish and wildlife agencies and the American Fisheries Society completed an assessment of the current fisheries program and identification of strategies for achieving the fisheries objectives in *Fish and Wildlife 2000*. This plan will be presented to the Director in early Fiscal Year 1989 and will apply to the 85,000 miles of fishable streams and 4 million acres of reservoirs managed by BLM.

Wildlife

Waterfowl Habitat – BLM lands contain 20 million acres of wetlands and waterfowl habitat. In Fiscal Year 1988, an interdisciplinary team identified strategies for achieving the waterfowl habitat goals in *Fish and Wildlife 2000*

and integrating those strategies with the North American Waterfowl Plan.

Desert Bighorn Sheep Rangewide Plan – BLM manages 80 percent of the desert bighorn sheep habitat in this country. A management plan for desert bighorn that encompasses six western states was completed in Fiscal Year 1988. This is the first such interstate, range-wide plan in the history of the program.

Watchable Wildlife – Fiscal Year 1988 brought the implementation of BLM's "watchable wildlife" initiative on public lands. Watchable wildlife activities, or the nonconsumptive use of fish and wildlife resources, have greatly increased over the last 20 years. Activities such as birdwatching, nature study and photography are expanding at a faster rate than other traditional consumptive uses. BLM will identify viewing opportunities throughout the public lands.

Animal Inn – BLM, together with the U.S. Forest Service, is implementing a national program to create an awareness of the value of "life in dead trees." The program will promote safeguarding "Animal Inns," and create an awareness that certain snags and dead trees provide homes for nongame and other wildlife.

Field Accomplishments

BLM field offices completed many projects and actions on behalf of fish, wildlife and special status plant species.

About 700 fish and wildlife habitat projects were constructed in Fiscal Year 1988, including water facilities, fences, den and nest facilities, seedings, and instream flow structures. These projects brought the total number since 1982 to 3,911.

Habitat management plans, cooperatively developed with State wildlife agencies and conservation organizations, focused on areas with significant fish and wildlife resources. Through Fiscal Year 1988, the BLM prepared or revised 400 habitat management plans encompassing 50 million acres. Of these, 107 have been fully implemented, while 212 are in the process of being implemented. Also, through Fiscal Year 1988, 73 recovery plans have been prepared for 50 animals and 16 plants, and an additional 12 are under development.



More than 18.2 million acres of fish and wildlife habitat, including habitats for threatened or endangered species, were inventoried. Habitat was monitored to determine whether fish and wildlife habitat management objectives were being met in BLM land use management activities. In Fiscal Year 1988, more than 1,800 plans were monitored.

Efforts were continued in California to develop and implement, with other agencies and industry, a special management area in the San Joaquin Valley of California (Carrizo Plain) for several endangered species. The management goal of Carrizo Plain is to protect the habitat for endangered species or other rare plants and animals. The development of oil and

gas resources will be expedited in other areas.

BLM continued working with the Peregrine Fund, and other agencies and organizations, to fund reintroduction of peregrine falcons in historic habitats. These efforts are moving this species toward recovery.

Efforts were continued in Idaho to maintain the Isolated Tracts Program that provides winter and nesting habitat for upland birds. Also continued were restoration of big game winter ranges destroyed by wildfires and implementation of a "greenstripping" program to reduce habitat loss from wildfires.

Forestry

Approximately 48 million acres of BLM-administered lands are forested. Twenty-two million of these acres are located in Alaska and 26 million in the lower 48 States. Forest lands are classified as commercial, capable of producing commercial timber, or as woodlands. Many forest products are harvested from woodlands. These products include, but are not limited to fuelwood, Christmas trees, and pine nuts.

The 22 million acres of forest lands in Alaska consists of approximately 7 million acres that are capable of producing commercial timber and 15 million acres of woodland. Because of recent land status changes in Alaska, only minimal forest management activity is presently occurring on these lands. The 26 million acres of forest lands in the lower 48 States consist of 5 million acres of commercial forest lands and 21 million acres of woodland. The 5 million acres of commercial forest lands are located in the states of California, Colorado, Idaho, Montana, Oregon, New Mexico, and Wyoming. Approximately 2.4 million acres of the commercial forest lands are located in western Oregon and are considered to be some of the most productive forest lands in the world.

In western Oregon, 1.033 billion board feet of timber were offered and sold during Fiscal Year 1988 and 1.64 billion board feet of timber were harvested. Receipts from the harvest of this timber exceeded \$200 million. Harvest levels were greater than in past years because of increased demand and excellent market conditions. The full allowable harvest level of 1.183 billion board feet was not offered and sold due to a court injunction halting the harvest of timber assumed to be habitat for the Northern Spotted Owl.

On public forest lands outside western Oregon, BLM produced overall resource benefits that exceeded investments. In achieving this objective, 63 million board feet of timber were offered and sold. Nontimber products included the sale of enough fuelwood to heat 12,000 homes, a sufficient quantity of corral poles and fence posts to build nearly 300 miles of fence, and more than 50,000 Christmas trees. These products were sold to commercial operators, as well as to individual families.

Trees were planted on about 32,000 acres of forest lands in western Oregon, and 2,340 acres in other areas. In addition, maintenance of existing plantations was completed on more than 21,300 acres in western Oregon, and 1,394 acres of timber stand improvement was completed elsewhere.

The Federal Timber Contract Payment Modification Act passed in 1984 requires the Secretary of the Interior to include in this report any actions that discourage bidding such that a purchaser is unable to perform contracts or any bidding that leads to speculation. In the process of monitoring bidding practices, BLM has discovered no evidence that indicates abuses. All timber sale contracts currently being purchased are being performed, and there is no evidence of speculative bidding. Rules implemented in 1982, requiring up-front cash deposits and scheduled payments and establishing procedures to offer more short-term contracts, have been effective. However, BLM will continue to monitor bidding practices.

Wild Horses and Burros

The major responsibilities of the BLM in administering the Wild Free-Roaming Horse and Burro Act (Public Law 92-195, as amended) fall into two categories: the protection, management, and control of wild free-roaming horses and burros on the public lands and the disposition of excess wild horses and burros that must be removed from these lands.

In Fiscal Year 1988, BLM removed 8,857 excess wild horses and burros from the public lands. However, because of an annual rate of increase calculated to be 18 percent and the transfer of one herd area from Forest Service jurisdiction to BLM, the reduction in total population was small, from 43,286 wild horses and burros at the beginning of the fiscal year to 42,347 at the end of the year (see Table). Through the resource management planning

process, BLM estimates that the overall appropriate management level will be about 31,000 wild horses and burros.

Once removed from the public lands, healthy excess wild horses and burros are made available for adoption by qualified individuals.



In Fiscal Year 1988, BLM placed 10,232 animals in private care through the adoption program. About 5,500 of these adoptions were accomplished through fee waivers, which allowed BLM to place otherwise unadoptable animals in private care. Wild horse interest groups and humane organizations opposed fee waiver adoptions because they typically were large-scale transactions where 100 or more animals were adopted by many individuals but were maintained in one location. A few instances of neglect or abuse of animals adopted under fee waivers caused increased concern about this method of adoption, and BLM first suspended in April, and then terminated in September, the fee waiver adoptions.

The BLM was then faced with finding another means of disposing of healthy excess wild horses that could not be placed through the regular adoption program. By law, such animals should be humanely destroyed, but BLM has maintained a voluntary moratorium on destruction of healthy animals since 1982. In Fiscal Year 1988, Congress expressly prohibited the use of appropriated funds to destroy healthy wild horses or burros.

Lacking both destruction authority and the use of fee waivers, BLM turned to the sanctuary concept as an acceptable means to maintain unadopted wild horses. For more than 3 years, wild horses awaiting adoption had been maintained in feedlots, but this approach was criticized by some as both expensive and inhumane because free-roaming animals were closely confined.

The first sanctuary for unadopted excess wild horses was established in summer 1988 in western South Dakota through the cooperation of the State of South Dakota, the South Dakota Community Foundation, the Institute of Range and the American Mustang and the BLM. It is envisioned that fundraising efforts will allow the sanctuary to become independent of Federal funding after 3 years.

Meanwhile, the regular adoption program succeeded in finding homes for slightly more than 4,700 wild horses and burros, with most of them adopted at 68 temporary adoption events. In anticipation of an intensified adoption program in the east for Fiscal Year 1989, a third contract adoption center was opened in 1988 near London, Ohio. The two other eastern centers are in Cross Plains, Tennessee, and Lewisberry, Pennsylvania. The contractors for these three centers also help operate temporary adoption events held throughout the year in the

east. A little more than a third of these events take place under the auspices of BLM's Eastern States Office, with the rest occurring under the supervision of BLM's western State Offices, particularly California and New Mexico.

To aid in placement of some of the older (3-6 years) wild horses and to increase the chances of long-term adoption success, four states have established inmate-wild horse training programs. The participating states include California, Colorado, New Mexico, and Wyoming, with New Mexico expanding its program to three sites in Fiscal Year 1988. These programs provide benefits for the inmates and the animals, which are partially gentled by volunteer prisoners working under the supervision of individuals knowledgeable in horse care and training. The animals are then made available for adoption through the regular adoption program.

Fiscal Year 1988 Wild Free-roaming Horses and Burros

State	Horses	Burros	Total
Arizona	191	2,005	2,196
California	1,884	1,438	3,322
Colorado	478	0	478
Idaho	431	1	432
Montana	128	0	128
Nevada	27,230	1,171	28,401
New Mexico	28	0	28
Oregon	2,170	6	2,176
Utah	1,778	105	1,883
Wyoming	3,303	0	3,303
Total	37,621	4,726	42,347

Rangeland Resources

During Fiscal Year 1988, the BLM monitored more allotments than ever before. The BLM also emphasized the importance of the selective management, range improvement and riparian policies in developing coordinated management prescriptions for the proper management of upland and riparian ranges. Eight state strategic plans were prepared with support from a wide array of interest groups.

Range

Since the passage of FLPMA, the focus of the range management program has been expanded to reflect consideration of all uses of public rangelands. The principal emphasis of the range management program is on the proper, integrated management of riparian and upland ranges to protect and improve rangeland resources for all of the multiple uses, including management of livestock grazing. Sound land use planning, done in coordination, consultation and cooperation with range users, interest groups, and other parties at the national and local levels, provides the basis for development of resource management objectives.

Following completion of land use planning and preparation of environmental impact statements (EIS), the resulting decisions are implemented through preparation of allotment management plans which identify grazing management prescriptions and other on-the-ground activities needed to achieve site-specific vegetation and other resource management objectives. The BLM prepared 143 allotment management plans during Fiscal Year 1988.

A major effort of the range management program has been the completion of EISs that address the impacts of livestock grazing on more than 170 million acres of public lands in 10 western states. Of the 144 total grazing EISs, 143 are now complete, including four completed in Fiscal Year 1988.

The emphasis of the program has shifted from preparation of grazing EISs to the proper, integrated management of rangelands. This is being achieved, in part, by documenting the benefits that can be realized and by informing and motivating others through the identification of successes. The growing support of the livestock industry for riparian area improvement is one example of how an awareness of benefits motivates affected interests.

In Fiscal Year 1988, about 3.1 million acres were inventoried using the ecological site inventory method. The information provides a basis for land use planning, identifying and supporting needed management actions, and detecting changes in resource condition through monitoring studies. Rangeland monitoring continues to be among BLM's top priorities. At the end of Fiscal Year 1988, there were 10,000 allotments with established monitoring systems. A workshop was held in Nevada in November 1987 for field office monitoring coordinators to further explain and refine monitoring policy and procedure and to ensure that effective monitoring activity would continue in future years.

Range improvements continue to be an important part of the range management program. During Fiscal Year 1988, range improvements included development of 482 water facilities, construction of 595 miles of fencing, development of 70 management facilities, treatment of 57,528 acres of vegetation, and maintenance of 75 improvement projects.

The BLM and Forest Service continue to actively support the Experimental Stewardship Program (ESP), as authorized by the Public Rangelands Improvement Act of 1978. The purpose of the ESP is to foster innovation, cooperation, and better range stewardship, ultimately leading to the improved condition of public lands. During Fiscal Year 1988, the Sixth National Resource Stewardship Conference was held in Montana. The ESP continues to improve communication and cooperation between private range users and BLM and Forest Service personnel and to increase pride in, and commitment to, the stewardship of public lands.

The BLM continues to implement and emphasize the 1987 Memorandum of Understanding (MOU) with U.S. Department of Agriculture agencies for coordinated resource management. The MOU facilitates coordination of resource planning, management, and educational activities with State and local agencies, private landowners, and other publics for development of sound resource management and conservation programs. It also provides for wider application of techniques and procedures developed through the ESP.

In Fiscal Year 1988, the BLM published final rulemaking to implement Executive Order 12548 to establish a permanent grazing fee formula.

The formula consists of a base value of grazing on public lands adjusted by indices reflecting current year land lease rates, cost of production, and beef cattle prices.

Annual increases or decreases of fees will be limited to no more than a 25 percent change from the previous year's fee. The fee will not, however, be lower than \$1.35 per Animal Unit Month (AUM). An AUM is the amount of forage consumed by one cow and one calf, one horse, or five sheep or goats in one month.

About 18,000 livestock operators use lands administered by BLM to supply part of the forage needed by their cattle and sheep each year.

Soil, Water, and Air

Soil, water, and air resource considerations are basic to both the short- and long-term objectives of many other BLM programs. Identification or inventory of existing soil, water, and air resources is the initial step in providing information needed for multiple-use planning and management.

Soil surveys were completed on nearly 4 million acres during Fiscal Year 1988, bringing the total number of acres inventoried to approximately 140 million. The goal is to complete a soil survey on 157 million acres of public rangelands by 1995.

BLM continues to make good progress in reaching the goal for quantifying existing water uses to facilitate water right claims. During Fiscal Year 1988, 4,600 sources were added to data bases used for recording water right filings with the States. Filings were made by BLM to the States for those water sources needed to provide for management of the public lands. Some of the water right filings were made in response to state water basin adjudications.

The completion of 250 watershed improvements in Fiscal Year 1988 provided for reduced erosion and sediment yields, stream-bank and channel stabilization, and salinity control. Maintenance of existing improvements continues as an ongoing effort, with 160 projects being completed in 1988. Approximately 2,600 watershed stations were monitored to assess progress toward meeting soil and water management objectives.

During Fiscal Year 1988, progress was made in implementing the actions outlined in the report to Congress titled *Salinity Control on BLM- Administered Public Lands in the Colorado*

River Basin. The report outlines a comprehensive program for minimizing salt contributions in the Colorado River from lands administered by the BLM. In Fiscal Year 1988, the BLM applied for instream flow appropriation for Beaver Creek National Wild River in Alaska. Field work was completed on instream flow requirements for the Gulkana National Wild River in Alaska.

A wilderness baseline monitoring project was initiated in Fiscal Year 1987 to test and demonstrate monitoring techniques and develop monitoring plans for management of BLM wilderness areas and wilderness study areas. In Fiscal Year 1988, this pilot monitoring effort was extended to include an additional wilderness area with greater diversity. This pilot project will enable development of a monitoring plan format for use in wilderness management plans.

The air resource program supports the operation of more than 28 Remote Area Weather Stations to provide climatic information for use in a wide variety of management activities. BLM's energy and mineral development activities, smoke management, and other programs are aided by the air modeling capabilities of the air resource program. Efforts to assure compliance with new EPA air quality standards for particulates have placed added emphasis on the management of smoke emissions and air modeling.

BLM's air resource program continues to play a key monitoring role in the National Acid Precipitation Assessment by operating 15 acid rain monitoring stations at remote locations in nine western States. As part of the continuing nationwide work in acidic deposition monitoring, the BLM is operating two dry deposition (aerosols, gases) monitoring sites co-located with acid rain stations in Idaho and Wyoming. These stations are part of the National Dry Deposition Network which established 10 stations in the West in Fiscal Year 1988. These stations provide data essential for the development of acid precipitation maps used to determine trends and possible impacts of acidic deposition in the western United States.

Pest Control

Weeds

The BLM participates in cooperative programs with States and counties for the control of noxious weeds on public lands. First

priority is given to control of those infestations that exist on both public and private lands. In Fiscal Year 1988, approximately 200 sites were treated on public lands to control a variety of weed species. The BLM is also a participant in integrated pest (weed) management research.

Grasshoppers

The BLM periodically, in cooperation with the Animal and Plant Health Inspection Service (APHIS), initiates action needed to control grasshoppers and other insects on public lands. APHIS applies control treatments when the levels of infestations become epidemic. In Fiscal Year 1988, less than 100,000 acres were treated. The BLM is an active participant in research to develop integrated pest management techniques for prevention of epidemic infestations.

Riparian Areas

During Fiscal Year 1988, the BLM developed state-specific supplemental guidance; rehabilitated degraded riparian areas; implemented Statewide riparian area management strategies; evaluated management results in demonstration areas; continued to cooperate with private, State, and other Federal entities; and initiated guidelines for the classification of riparian areas.

In Fiscal Year 1988, the BLM also implemented the Riparian Area Management Policy which stresses the interdisciplinary, multi-resource character of riparian area management. This means that all programs — range, watershed, forestry, lands, minerals, etc. — share the responsibility of ensuring that the basic riparian area components of soil, water, and vegetation are taken into consideration when conducting program activities. The policy also serves as guidance to field managers on how to maintain, protect, and improve riparian areas. Most BLM State Offices have developed supplemental riparian policies and all States have prepared riparian management strategies.

Riparian areas are among the most productive and important ecosystems, displaying a unique diversity of plant and wildlife species and vegetation structure. Although these areas comprise less than 1 percent of the 270 million acres of public lands managed by the BLM, they have ecological importance far beyond their relatively small acreage. The BLM

Riparian Task Force Reports are being completed to provide technical guidance to the field for riparian area classification, inventory, monitoring, and management.

There has been increased "riparian consciousness" among BLM resource specialists and managers and public land users through BLM-sponsored workshops and tours. Public information materials on riparian management, including fact sheets, videos, slide shows and displays, have been distributed to field offices. In Fiscal Year 1988, the BLM started implementation of the General Accounting Office's recommendations in the report titled, *Public Rangelands, Some Riparian Areas Restored But Widespread Improvement Will Be Slow*.

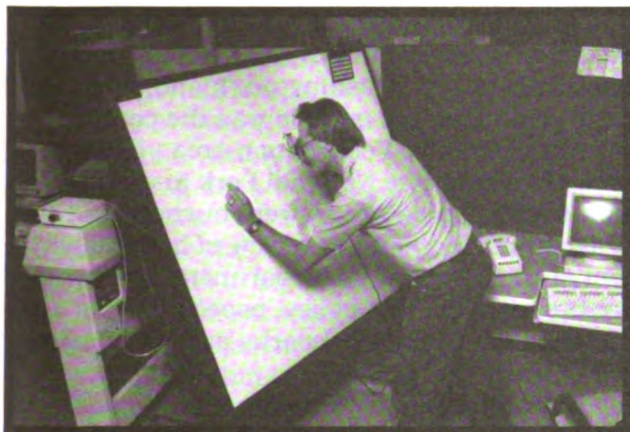
To illustrate the enhancement of riparian areas, each BLM District has established at least one riparian demonstration area, where the best management practices and instream habitat improvement work have been or will be implemented. These areas continued to be monitored in Fiscal Year 1988 and continued to demonstrate the benefits and resiliency of riparian systems to BLM resource specialists and managers, livestock operators, conservation groups and other public land users.

Support Services

Engineering Services

When BLM was established in 1946, it inherited its physical facilities from its parent agencies, the General Land Office and the Grazing Service, along with a primitive road system that reflected the miscellaneous needs of ranchers, mining companies, railroads, and county and State governments. Since the mid-1960s, BLM has constructed numerous roads and trails necessary for administration of the public lands. Where suitable leasable office and other facilities are not available, BLM has constructed its own office buildings, warehouses, shops, and other facilities tailored to the agency's resource management responsibilities.

In Fiscal Year 1988 BLM completed the construction of the new District Office complex in Fairbanks, Alaska. Other projects such as major road maintenance, recreation site work,



and building repair work were also done. In addition, an extensive long-range maintenance inventory and condition survey program was begun in Fiscal Year 1988 and will be continued in Fiscal Year 1989.

BLM provided maintenance to about 140 office buildings; more than 800 other BLM-owned buildings and associated water and sewer systems; approximately 800 developed family unit recreation sites; 5,000 undeveloped (without water) sites; approximately 10,000 miles of roads; more than 1,000 miles of trails; and 30 bridges.

With Fiscal Year 1988 completions, BLM has available 1:100,000 scale surface and subsurface maps providing coverage for most of

the lands administered by BLM. Photogrammetric and remote sensing support was provided by a central office at Denver as well as within each State. Automation of cartographic functions was continued in Fiscal Year 1988 and has become an integral part of BLM's Automated Resource Data System.

Additional support was provided through survey and design of various range improvement and watershed construction projects. BLM continued its dam inventory and hazard assessment programs in Fiscal Year 1988.

Planning

The Federal Land Policy and Management Act, enacted in 1976, provides for the development and maintenance of land use plans for the public lands. Special emphasis is placed on public participation. In 1979, planning regulations (43 CFR Part 1600) were issued establishing resource management plans as the basic planning document. Other legislation containing planning requirements include the National Environmental Policy Act of 1969, the Federal Coal Leasing Amendments Act of 1976, the Surface Mining Control and Reclamation Act of 1977, and the Public Rangelands Improvement Act of 1978.

Planning helps the local BLM manager, public land users, and others resolve resource management conflicts and land use issues. BLM seeks to improve resource management decisions on the public lands through a planning process that includes participation by the public and Federal, State and local governments; use of the best available data; and analysis of alternatives. Resource management plans are designed to guide and control management actions relating to the increasingly competitive demands for public lands, while at the same time protecting and ensuring their long-term productivity.

Fifty-four resource management plans had been approved by the end of Fiscal Year 1988. An additional 10 plans were in final form and awaiting State Director approval, while 6 plans were in draft form and available for public review. BLM also issued draft plans for nonmilitary uses of four military withdrawals that were extended by Congress in 1986. With 54 plans completed, BLM is placing increased

emphasis on plan implementation, monitoring, and maintenance. In Fiscal Year 1988, the BLM Phoenix Training Center twice offered the "Using the Plan" training course.

Areas of Critical Environmental Concern

The FLPMA requires that BLM give priority to the designation and protection of areas of critical environmental concern (ACEC). Such areas are designated to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources or other natural systems or processes; or to identify natural hazards. Natural areas may also be designated under FLPMA to maintain natural diversity and provide for scientific research.

Areas of critical environmental concern are identified through BLM's planning process. Appropriate management prescriptions for each area are developed and tailored to reflect the site-specific resources and local circumstances. Protection of the identified values is ensured whenever subsequent uses are undertaken or authorized.

During Fiscal Year 1988, 67 ACEC designations were made. This raised the amount of public land accorded designation to more than 5.3 million acres and reflected BLM's vigorous commitment to the appropriate use of this designation and management authority. A new manual to aid the identification, evaluation, and designation of ACECs was issued in September 1988. The new manual, based on an earlier public and Bureauwide review of proposed revisions, completed an effort to improve BLM's existing ACEC guidance.

Fire

Fire has always been a part of the natural environment. With that in mind, BLM sees fire from two different aspects -- wildfires that cause negative impacts and must be suppressed and prescribed fires that can be used to achieve positive resource management objectives. In a change from the days of total wildfire exclusion on public lands, BLM today uses fire as a major tool in accomplishing multiple-use objectives, while totally suppressing only the damaging and unwanted wildfires.

BLM is responsible for fire management on more than 380 million acres of Federal and nonfederal lands in the 11 western States and

Alaska. The fire program also continues to develop new technology in group equipment, aircraft, and computers.

In addition, BLM manages the Boise Interagency Fire Center in Idaho. This is the national fire support center, providing support to agencies of the Departments of Interior and Agriculture, and to the Department of State (for assistance to foreign countries), as well as to State governments.

During Fiscal Year 1988, 3,078 wildfires were recorded either on, or threatening BLM-administered land. This number far exceeds the normal annual average of 2,350 wildfires. But the acreage burned, 295,000 acres, was just over one-quarter of the 1 million acres burned in an average year.

The 1988 fire season was characterized by the fourth year of drought in many areas of the western United States. As early as May, provisions were made to increase firefighting capabilities in Arizona, California, and Oregon. By the middle of June, it was apparent that the West was in for another severe fire season, perhaps exceeding severity of any of the three previous seasons.

Sparked by lightning and human activities, extremely large fires spread across portions of Alaska, Oregon, Washington, Idaho, Montana, and Wyoming. Most notable was the complex of fires in the Greater Yellowstone Area. Large areas of Yellowstone National Park and surrounding National Forests were burned, and the public outcry led to a full review of both Department of the Interior and Department of Agriculture fire management policy, especially as it applies to fire in national parks and wilderness areas.

Mobilization of firefighting crews and other resources again exceeded any prior records. The suppression effort involved personnel from nearly all States and Canada. At the peak, nearly 30,000 firefighters fought the many wildfire complexes. Military troops were used on several fires in both Yellowstone Park and on National Forest lands adjacent to the Park.

The Boise Interagency Fire Center also had a record year in 1988, providing support to suppression efforts on 1,700 wildfires. The Fire Center moved record numbers of personnel and tons of supplies and equipment in support of these fires. In addition, the Fire Center coordinated the training and use of eight battalions of regular military troops in support of the Greater Yellowstone Area fire complex. Unlike the previous year, the support demands were steady throughout the fire season, covering nearly 150

days. Safety continues to be a very high profile program in the firefighting business. During 1988, the National Fire Protection Association released figures showing firefighting as the most hazardous occupation in the nation and wildland firefighting as the most dangerous type. Despite two fatalities of BLM employees on other agency fires, the overall safety record for 1988 was outstanding.

BLM continued participation in the National Wildland/Urban Interface Initiative during Fiscal Year 1988. The Initiative is sponsored by the Department of the Interior (through BLM), U.S. Forest Service, National Fire Protection Association, and U.S. Fire Administration. The increase in construction of homes in and near wildlands has become a very important factor in wildland firefighting. When wildfire strikes, the priority becomes protection of private buildings instead of public resources, such as timber, grazing lands, and recreation areas. While the mission of Federal wildland firefighters is to protect wildland resources, they are increasingly forced to sacrifice control of a wildfire to defend homes.

Reduction of fire hazards in this setting requires more than just individual action by homeowners to reduce fire hazards on their own property, although that is a very important goal of the Initiative. It also depends on the cooperation of a variety of entities, including county zoning departments, architects, real estate agencies, and insurance companies. The purpose of the National Wildland/Urban Interface Initiative is to increase community awareness of the inherent wildfire hazards attached to living in or adjacent to the wildlands, and to work toward making the changes that could resolve these problems.

Significant progress also occurred during Fiscal Year 1988 in the area of communications and automated data systems. BLM continued to develop the Initial Attack Management System (IAMS), and enhanced the network of Remote Automated Weather Stations throughout the West.

Prescribed fire use in BLM decreased significantly in Fiscal Year 1988, partially due to the severe burning conditions encountered. There were 582 projects completed that burned 53,344 acres. As is normal, the majority of the activity, more than 460 projects, was in support of forestry management in western Oregon. Of the acreage burned, 16,000 acres were burned to accomplish forest improvements, 18,000 acres were burned for range improvements, and 15,000 acres were burned to benefit wildlife.

Fire rehabilitation costs on damaged soil/watershed areas were \$7.42 million, distributed among 54 projects. These fire rehabilitation efforts included reseeding of grasses or shrubs, construction of protective fences or dams, and installation of culverts and other drainage devices.

Aviation

During Fiscal Year 1988, the natural resource programs in the BLM accumulated over 38,000 hours of flight time at a cost of more than \$30 million. More than 90 percent of BLM aircraft services were provided through contracts with the private sector.

During Fiscal Year 1988, an aviation safety and accident prevention planning process was given top priority, along with an effort to plan and develop a wide range of new training courses and materials. BLM experienced only one serious accident during the year. A helicopter was destroyed while herding horses, but the crew suffered only minor injuries.

Law Enforcement and Resource Protection

Areas of enforcement that have received particular emphasis since establishment of the law enforcement program in 1976 include investigation and eradication of cannabis cultivation; prevention of theft, destruction, and sale of protected archaeological resources from public lands; investigation of oil and gas theft; and wild horse and burro violations.

Since the passage of the Federal Land Policy and Management Act of 1976, BLM initiated a law enforcement and resource protection operations program that utilizes special agents and law enforcement rangers, all well trained in law enforcement, to enforce laws pertaining to the public lands and their resources.

Where appropriate, law enforcement agreements with local officials are also used to enforce laws or ordinances of the respective State or subdivision upon public lands. BLM law enforcement officers perform a full spectrum of patrol and investigative duties and are authorized to enforce all Federal laws and regulations pertaining to use, management, and development of the public lands and their resources.

During Fiscal Year 1988, BLM special agents and law enforcement rangers continued

efforts with other Federal, State, and local agencies to eradicate cannabis on public lands in California, Oregon, and other western States. BLM also increased its efforts to enforce the Archaeological Resources Protection Act of 1979 by emphasizing the investigation of destruction, theft, and sale of archaeological artifacts.

Cadastral Survey

As established by law, BLM's Cadastral Surveying Division has the ultimate responsibility for all of public and boundary surveying. Its work extends beyond the survey and resurvey of public lands, authority for which goes back to the Land Ordinance of 1785. With perfecting changes, its rectangular principles were enacted into law under the Constitution in the Public Lands Act of 1796 and have been carried forward to 43 USC 751. Consequently, there is a nationwide dimension to BLM cadastral surveying. Its crews are in the field from Florida to Maine, from Maine to California, and from California to Alaska. BLM's cadastral surveyors continue to introduce changes in their ancient art to take advantage of emerging technology.

BLM maintains all official Public Land Survey System records covering 30 States. Because private surveyors are constantly making resurveys and subdivisional surveys, these records are in steady demand as the basis for the new surveying, even in States which have long since ceased to be public lands States.

Field accomplishments during Fiscal Year 1988 include surveying 6.3 million acres, of which 5.6 million acres were original surveys and 700,000 acres were resurveyed. Ninety-nine percent of the original surveys were Alaska statehood grants or Alaska Native Claims grants; the remainder were mostly public lands and Indian lands. The resurveyed acres were principally public lands and National Forest lands, but included Indian lands and Federal reclamation lands.

To provide on-the-ground identification and to yield simple, precise descriptions for legal records for the 6.3 million acres, BLM surveyors ran 11,846 miles of survey lines, marked them with 15,138 monuments, and filed 1,300 sets of plats and field notes, the definitive legal record of the surveys. In Alaska, one-third of the original surveys and many special surveys were contracted to private survey firms. BLM directed the work and approved the plats and field notes after ascer-

taining that the survey was done in accordance with the Manual of Surveying Instructions, 1973.

The Public Land Survey System/Geographic Coordinate Data Base (PLSS/GCDB) is being designed and tested in the New Mexico State Office. A 100-township test block is being used and contains varied types of surveys including rectangular surveys, Spanish Land Grants, Mining Claims, and Small Holding Claims. Methods and procedures for a data collection contract will be a product of the test site. The contract project is expected to cost about \$15 million.

BLM's Cadastral Surveying Division is continuing to cooperate with New Mexico State University in the development of a 4-year course in land surveying. Under an Intergovernmental Personnel Act agreement, a senior BLM Spanish-speaking geodesist is assisting the university faculty in formulating a 4-year course in land surveying. Completing such a course will soon be required for future professional accreditation in New Mexico.

Efforts are underway to automate the collection of field survey data for direct entry



into the automated plat and field note preparation system. It is expected that this effort will reduce the number of errors inherent in the current manual system, thereby increasing productivity.

Volunteers and Other Contributed Services

In 1988, for the first time, BLM had more volunteers than employees. The BLM's 10,810 employees were assisted by 14,077 volunteers. This was 56 percent more than the 8,994 volunteers who worked with the BLM in 1987.

Other statistics for Fiscal Year 1988 include:

- *Citizen volunteers contributed 583,351 hours of work, 13 percent more than in 1987.*
- *Their contributed services were valued by BLM's field managers at \$5.5 million, 11 percent more than for 1987.*
- *Associated costs to the Government were estimated at \$558,568 — indicating a benefits-to-costs relationship of 9 to 1.*
- *On the average, each volunteer worked 41 hours. One out of three was female; 10 percent were more than 55 years old, and 30 percent were under 18 years of age.*

Volunteers serve BLM in many diverse ways. For example, they improve habitat for fish and wildlife; assist recreational visitors to the public lands by serving as trail guides and river rangers; build or maintain trails and campgrounds; improve range and forestland by planting trees and other vegetation; conserve soil and water resources by improving watersheds; do mapping, research and other tasks to support mineral and energy planning and development, and assist with administrative support by operating computers and other office equipment.

Examples of volunteer activities in Fiscal Year 1988 include:

In Alaska, Diana Gansemer displayed initiative and enthusiasm when she transformed an empty building north of the Arctic Circle into a hospitable visitor center. The center, located in the town of Coldfoot on the Dalton Highway, can be reached by traveling on the 600 miles of gravel road running north from

Fairbanks to Prudhoe Bay. In its first summer season, the facility attracted more than 700 visitors.

Visitors enjoyed Gansemer's slide-show on northern Alaska history, recreation attractions and fragile natural resources, as well as her walking tour of gold miners' 80-year-old cabins. As a result of her demonstration of the value of this remote visitor center, in 1989 it will be operated by three federal agencies -- BLM, National Park Service and Fish and Wildlife Service. Gansemer will continue to volunteer at the center as BLM's representative.

In New Mexico, James Gillham, a petroleum engineer and retired BLM and U.S. Geological Survey employee, reviewed approximately 5,000 rights-of-way across public land and converted relevant data into a new automated billing system for the Roswell District. He also abstracted information from oil and gas agreements and contracts for entry into an automated case-recording system. BLM's Roswell District Manager estimated the value of Gillham's contributed service at \$35,000.



In Nevada, Nicholas Williams worked as a multiple-purpose volunteer for the Tonopah Resource Area. In addition to operating the Area's word processor and mobile radio station, and assisting the mineral program, he mapped 14 mountain-top communication sites with compass and chain survey, and maintained 13 remote water guzzlers that catch and store water for chukar partridge and desert bighorn sheep. His timely discovery and repair of a defective guzzler was credited with saving a herd of bighorn sheep.

In Idaho, the volunteer services of 19 Native Americans and University of Colorado anthropologist Deward Walker made it possible for BLM to begin to appropriately manage a long-neglected site known as Chief Tendoy Cemetery, in BLM's Lemhi Resource Area in east-central Idaho.

Long used by members of the Lemhi Shoshone Tribe to bury their dead, the site was set aside by the U.S. Government for protection as an "Indian burying ground" in 1907 when the Government forced the tribe to move to a reservation 200 miles away. The 40-acre site includes the grave of Chief Tendoy — a descendant of Sacajawea, the Lemhi Shoshone woman who guided Lewis and Clark through this region in 1805. In recent years the area has been subjected to vandalism and unauthorized off-road-vehicle use, hunter access, farming, cattle grazing, and trash dumping.

The volunteers took tribal elders to the site and learned locations of graves and associated tribal traditions and values. Walker advised both BLM officials and tribal leaders, who have known him for 20 years and trust him. As a consequence, BLM adopted, in consultation and agreement with tribal leaders, a cultural resource management plan for the area. Now, the site is fenced, trash has been removed (with additional volunteer assistance from Boy Scouts and other local citizens), vehicle tracks have been blocked by barriers and seeded with native vegetation, and historical and memorial markers are being prepared.

In Oregon, members of the Dean Creek Elk Committee of the Oregon Wildlife Heritage Foundation contributed 18,500 hours of volunteer work toward completion of BLM's 923-acre Dean Creek Elk Viewing Area near Reedsport, in the Coos Bay District. They produced and presented video tapes and other educational materials which helped to educate citizens and local, State, and Federal officials about the area's potential.



In addition, they raised \$85,000 in public donations to help pay for construction of an interpretive center for visitors by sponsoring dinners and auctions, and selling "Join-the-Herd" T-shirts, caps, and buttons. Upon completion of the interpretive center, adjacent to the fenced viewing area of meadow and wetland, visitors may observe not only a herd of 100 or so Roosevelt elk, but bald eagles, osprey, and other species of coastal Oregon wildlife.

In Utah, 20 high school students wrestled with rock, wire mesh, steel posts, bailed straw and filter fabric as they built 150 structures to reduce soil erosion in streams and gulleys. The structures, called gabions, dissipate the erosion energy of flowing water and retain soil. The students, members of South Sevier High School's Future Farmers of America chapter, worked under the supervision of their vocational agriculture teacher, Larry Coombs. Coombs used the watershed improvement program of BLM's Richfield District as a basis for this learn-as-you-sweat project, as well as for related instruction in environmental education and land management.

In California, Ann and Douglas Chadwick conducted botanical surveys of the Carrizo Plain that will be a basis for management of this isolated part of the San Joaquin Valley. The area has been called a North American version of East Africa's Serengeti. In a stark landscape that appears sterile with little diversity, the Chadwicks located more than 200 species of plants, including rare, threatened and endangered species.

Through an alliance with the Nature Conservancy, National Audubon Society, California Department of Fish and Game, San Luis Obispo County, Chevron and Santa Fe oil companies, U.S. Fish and Wildlife Service, and

the BLM, the 8-mile-wide, 50-mile-long basin of arid scrub and grassland is to be cooperately managed as a mixed public-private ownership complex known as the Carrizo Natural Heritage Reserve. Under sensitive production controls, the oil companies will be able to operate wells as pronghorn antelope and tule elk are restored to an area that already is home to California's largest and most diverse concentration of rare and endangered vertebrate species.

The Chadwick's plant lists — the first detailed description of the botanical resources of five study sites in BLM's Elkhorn Plain Area of Critical Environmental Concern, and at Soda Lake, a natural alkali wetland — will provide baseline information for long-term management of habitat for endangered species of both plants and animals.

In Colorado, five citizens completed an unusual 2-year volunteer project assisting BLM in developing a plan for interim management of the Gunnison Gorge, a dramatic river corridor being considered for designation as a National Wild and Scenic River and wilderness area. Before they went to work, this was considered by some BLM officials to be the agency's most controversial river planning project. The resulting plan, BLM's first in Colorado to include outfitter and private-boater allocations, now has another distinction as well — after its adoption, the agency received no letters of protest or appeals.



The volunteers' assignment included determining the corridor's carrying capacity for recreational visitors; defining management actions required to limit use to this amount, and proposing other actions that would allow primitive and semi-primitive public uses while maintaining natural resources of the gorge and tributary canyons in an essentially unmodified condition pending decisions by Congress on wilderness and wild-river designations. The area's inhabitants include river otter, brown and rainbow trout, deer, elk, and bighorn sheep.

The five volunteers — Richard Baker, representing the general public; Joel Evans, fishing public; Jerry Mallett, commercial river outfitters; Carol Taylor, private river runners; and Fred Wetlaufer, conservation groups — are continuing to assist BLM's Uncompahgre Basin Resource Area in the Montrose District in carrying out the plan.

Hosted Workers

BLM employees also recruit "hosted workers," or people who do work for BLM for which they are paid wages by an entity other than BLM. One example of such a program is the Senior Community Service Employment Program, a Federal-State program through which low-income older persons can work for public or community service organizations and be trained on the job while paid minimum wage.

In Fiscal Year 1988, BLM's field managers were assisted by 1,099 hosted workers, who served 315,145 hours and accomplished work valued at \$2.6 million. Incidental costs to BLM were estimated at \$138,191.

Information Resources

Within BLM, Information Resources Management (IRM) includes automated data processing (ADP), telecommunications, records and information security. IRM is currently involved with rapidly growing technology and equally increasing demands for automation to support public lands' resources management.

BLM is acquiring additional computer resources to support its State Office minicomputers and the mainframe computer in Denver, Colorado. More than 65 PRIME minicomputer systems in State, District, and Resource Areas and over 2,200 microcomputers Bureauwide are bolstering BLM's evolving automation

efforts. Graphics applications, both for Geographic Information Systems (GIS) and business purposes, have expanded at an astonishing rate.

By the end of Fiscal Year 1988, BLM had completed an Information Systems Review for 11 States, the Service Center in Denver and the Boise Interagency Fire Center.

ADP and information security is of growing concern to BLM. With the passage of the Federal Computer Security Act of 1987, BLM began developing a comprehensive Information Security Program. This includes protecting the Bureau's data from unauthorized access and developing security plans for sensitive systems.

In telecommunications, the BLM reduced its subscription to consolidated telephone service, provided in major metropolitan areas by the General Services Administration, in favor of BLM-owned and maintained system. The change resulted in \$1.7 million savings during Fiscal Year 1988, with a projected savings of \$3.1 million dollars over the next 10 years.

In Fiscal Year 1988, BLM and the National Archives and Records Administration developed a new method for cross-referencing land patent case files, so that public researchers will know that updated information concerning an original patent exists in BLM. In addition, BLM issued a new records retention and disposition schedule. This schedule lists all known categories of BLM records, where they are located, on what media they exist, whether they are permanent or temporary and how long they are to be maintained.

One innovative means to improve BLM's IRM operations, together with its technical expertise, is a new IRM Trainee program, conceived in 1987. At the completion of the program, participants will have acquired the skills necessary to successfully manage all the technical IRM disciplines required at the State Office, Service Center, Boise Interagency Center IRM Branch level, or the Washington Office staff level. Two trainees were selected during Fiscal Year 1988 at approximately 6 month intervals.

BLM further refined its Land Information System (LIS) concept during Fiscal Year 1988, to ensure that separate users of automated records, resources, and geographic coordinates data share information and join in common development efforts toward a Target System. BLM also expanded coordination efforts with other Federal agencies, State and

local governments, industry and public interest groups in Fiscal Year 1988 to increase understanding of how BLM's automated data can be used by others.

BLM's Modernization study was completed in Fiscal Year 1988 and incorporated into a target system contract that will be issued in mid-1989 and awarded in mid-1990. The contract will include the Automated Land and Mineral Leasing System (ALMRS).

Automated Land and Mineral Record System (ALMRS)

A basic BLM responsibility for the last 200 years has been the maintenance of the land and mineral records for the public lands. These official documents are the basis for the legal authorizations to use the public lands, including thousands of applications annually for oil and gas leases and rights-of-way.

BLM is now automating access to the information on these records, replacing hand-drawn plats and procedures that, in some offices, date back to the beginning of the country.

Implementing the Automated Lands and Minerals Records System (ALMRS) is a major effort. BLM maintains more than 250,000 cubic feet of records, 1 billion documents on paper. The demand for use of the public lands continues to grow and has exceeded the capacity of the manual forms and procedures used for many years.

ALMRS, when fully implemented in Fiscal Years 1992-93, will automate much of the case processing and will greatly improve responses to public queries about the availability of public lands for particular purposes, including the filing of mining claims.

Because ALMRS will significantly increase efficiency by implementing modern business practices in BLM, it is a cost-effective investment. Benefits total more than \$850 million through the system's life cycle, with the additional costs being approximately \$150 million to implement an automated system rather than perpetuate the paper-based operations. The alternative to automation would involve retracing tens of thousands of plats, which alone would cost \$30 million and provide no greater efficiency.

During Fiscal Year 1988, BLM largely completed the definition of its functional requirements for automating the records management process. This is a critical accomplishment, since BLM plans to obtain the computer

capabilities through a competitive procurement planned for issuance in Fiscal Year 1990 and vendors will have to know in some detail what capabilities are required.

BLM adopted a procurement strategy in late Fiscal Year 1987, after detailed discussions with the vendor community, to "bundle" into one contract the purchase of ALMRS hardware and software to increase the potential efficiency of the system. Emphasis on actual data administration and data base management was increased in Fiscal Year 1988 to ensure a verified data base would be operational when the software and hardware were completed.

BLM is relying upon the standard, proven analytical approaches to developing automated systems, where the needs are well-documented and the alternative management choices are made through the life-cycle man-

agement process. To ensure the analysis matches the real-world concerns in various offices, BLM also uses prototyping of portions of the planned system and is piloting computerized applications and data base operations in field offices in New Mexico.

While the delivery of operational ALMRS computers in every BLM office is still several years away, BLM has already created an automated data base of legal land descriptions (based on the Cadastral Surveys) for nearly all the western States. It has also completed automating the land status in Alaska, New Mexico, and Arizona. BLM has initiated similar data collection efforts in Montana, Idaho, Utah, and Nevada. Because of the quantity of data to be automated, collection of status data will require several years.



Management and Productivity Initiatives

During Fiscal Year 1988, the BLM continued several initiatives designed to improve the productivity of its programs and employees. A Bureauwide productivity improvement plan using a "Total Bureau" program emphasis entered its second year. The plan's goal is to improve the quality of programs and services. With this in mind, the BLM initiated development of quality and timeliness measures and standards in Fiscal Year 1988. The goal is to establish practical, measurable criteria to help the BLM determine whether it is improving the quality of our products and public services.

On October 1, 1987, the BLM implemented its Productivity Pilot Project, a 3-year program to improve the quality of worklife for employees, establish a more active organization, create more responsive resource management, improve the quality of work and improve productivity. Four BLM districts, Susanville, California; Butte, Montana; Roswell, New Mexico; and Rock Springs, Wyoming, were selected from a list of nominations based on the existing variety of resource management conditions, strong motivational characteristics, and

ability to support a significant pilot program. The pilot project allows local managers to set priorities in conjunction with the Department of the Interior, BLM, and State priorities, and to do things because they make sense. The project has the potential to reduce unnecessary procedures and tasks. Successful initiatives that have potential for Bureauwide application will be recommended to the Bureau Management Team for consideration.

The BLM participated in the Secretary of the Interior's first annual Productivity Enhancement Funding program in Fiscal Year 1988. The program was initiated to provide a way for field level personnel to recommend ways to improve productivity throughout the Department of the Interior. Seed money is provided to local offices to try new and innovative ways to accomplish tasks. Seven of the 21 Fiscal Year 1988 proposals approved by the Department of the Interior were submitted by the BLM. The BLM will be an active participant in this program in Fiscal Year 1989.

Procurement

During Fiscal Year 1988, BLM spent \$146 million for goods and services. This includes \$103 million for 650 contracts in

Socioeconomic Procurement Programs

<i>Category</i>	<i>Goal (\$000)</i>	<i>Actual (\$000)</i>
Awards to Small Business	47,630	86,032
Awards to 8(a) Firms	1,400	4,293
Awards to Minority Businesses (including 8[a])	3,500	7,504
Awards to Women-Owned Business	1,750	4,322
Setasides for Labor		
Surplus Area Concerns	10,500	51,678
Total	64,780	153,829

excess of \$25,000, and \$43 million for 39,000 small purchases of \$25,000 or less. In addition, BLM operated a test using bankcards for small purchases. Field employees completed 11,000 transactions worth \$1,615,000 using 700 cards. This technique reduces paperwork, permits over-the-counter transactions and guarantees the vendor fast payment.

BLM continues to exceed its goals in various socioeconomic procurement programs, as the following table shows.

The Bureau completed development of requirements for an automated procurement system to automate all procurement operations, from requisition to close-out, produce necessary reports, and interface with Financial Management and Property systems. In Fiscal Year 1989, BLM will query the market-place to determine if software exists to fill its needs. Cost/benefit analyses of all available alternatives will be completed and recommendations for development made to management.

Property Management

In Fiscal Year 1987, BLM was asked by the Department of the Interior to develop a fleet management information system, gather data from the Bureaus regarding utilization of its vehicle fleet, and meet the requirements of P.L. 99-272, Subpart C. That system is operational and BLM is providing reports to the Department.

Development of user requirements for an automated stores warehousing system was begun in Fiscal Year 1988 and will be completed in Fiscal Year 1989. Development in Fiscal Year 1990 is anticipated.

BLM implemented the General Service Administration's Generic Real Property System for automated reporting on Federal holdings of real property.

Uniforms

To improve the public's identification with BLM and its objectives, improve BLM's overall image and to promote esprit de corps among BLM employees and volunteers, a national uniform contract was awarded to Lion Apparel of Dayton, Ohio, in December 1987. A catalog depicting the full range of current dress, field and work components is available to BLM employees and volunteers. The program was launched in May 1988, and by the end of Fiscal Year 1988, approximately 2,500 employees had

ordered uniform components. Initial reaction to this program by employees and the public has been good. A National Uniform Committee has been established to strive to improve comfort and fit, add other needed components, and promote proper wearing of components.

Directives Reviews

A general management evaluation of the Washington Headquarters office pointed out the need to make the BLM Manual system a more current and reliable source of guidance and direction to the field. The Branch of Directives Management developed instructions and criteria, under which Headquarters divisions reviewed all existing manuals, assessed their condition, and developed priorities in Fiscal Year 1989 and beyond for accomplishing necessary revisions. This is a first step in a long-term effort to improve the content of the BLM manual system.

Personnel Management

BLM's Division of Personnel in the Washington Office concentrated much of its efforts on developing personnel policies in connection with streamlining of personnel services, career development programs, and major position classification issues during Fiscal Year 1988.

In an effort to improve productivity through maximum use of human resources, BLM is continuing the implementation of its career program. The program has six major components: New Employee Orientation, Employee Excellence, BLM Careerists Professional Development, Management and Leadership and Advanced Leadership. The first two components are geared to all employees at the beginning and early stages of their careers and are designed to build an understanding of and commitment to BLM's mission and their role in that mission. The final four components focus on identifying and developing both a reserve of technological expertise and a body of high-potential future managers and leaders.

During Fiscal Year 1988, BLM employed nearly 10,000 individuals. Continued emphasis was placed on position management and position classification throughout BLM. Primary emphasis was placed on classification of positions related to the Bureau's evolving functions in the agency's Land and Information System and modernization efforts.

Financial Management

Appropriations and Expenditures

BLM programs are funded through six major operating appropriations, several minor permanent and trust appropriations, and reimbursements from other Federal agencies for work performed on their behalf. In addition, the BLM budget includes one annual appropriation and numerous permanent appropriations that provide funds to State and local governments in which Federal land resources are located, either as payments in lieu of taxes or as shared revenues from the sale, leasing and disposition of resource commodities.

BLM Funding				
Fiscal Year	1985	1986	1987	1988
		<i>(in millions)</i>		
BLM Operating Appropriations	\$ 480.0	457.8	577.1	593.7
Payments-in-Lieu of Taxes	103.0	99.9	105.0	105.0
Permanent Payments to States	141.0	12.4	81.4	156.4
Other Miscellaneous	4.8	4.7	5.9	7.3
TOTALS:	\$728.8	574.8	769.4	862.4

Funding and obligation data on a program-by-program basis for BLM's principal operating accounts for Fiscal Years 1987, 1988 and 1989 are as follows:

Management of Lands and Resources

	FY 1987 * Actual	FY 1988 * Actual (in thousands)	FY 1989 Enacted
Energy and Minerals Programs (Oil & Gas, Coal, Mining Law Administration, etc.)			
Appropriation	78,482	80,620	74,297
Obligation	77,556	80,378	74,297
Work Years	1,127	1,714	1,682
Lands, Realty and Rights-of-Way			
Appropriation	39,603	46,787	36,729
Obligation	39,128	46,740	36,729
Work Years	995	892	859
Forest Management			
Appropriation	6,105	7,281	6,685
Obligation	5,883	7,252	6,685
Work Years	128	127	127
Wild Horses & Burros			
Appropriation	17,787	15,485	14,560
Obligation	17,771	15,470	14,560
Work Years	0	152	145
Grazing Management			
Appropriation	31,467	33,426	34,600
Obligation	30,724	33,393	34,600
Work Years	909	771	800
Soil, Water and Air			
Appropriation	13,316	13,879	14,741
Obligation	13,002	13,865	14,741
Work Years	262	237	262

Management of Lands and Resources

	FY 1987 * Actual	FY 1988 * Actual (in thousands)	FY 1989 Enacted
Wildlife and Fish Habitat Management			
Appropriation	16,013	14,153	19,985
Obligation	15,864	14,139	19,985
Work Years	323	327	362
Recreation Management Recreation, Cultural & Wilderness Resources)			
Appropriation	22,891	23,637	25,160
Obligation	22,587	23,613	25,160
Work Years	472	476	513
Resource Management Planning			
Appropriation	9,283	9,465	9,289
Obligation	9,178	9,337	9,289
Work Years	198	182	180
Information & Resource Data Management (Information Systems, ALMRS, Resource Data Acquisition)			
Appropriation	20,724	21,004	43,060
Obligation	20,598	20,983	43,060
Work Years	243	419	519
Maintenance (Fire Management, Cadastral Surveys, Resource Protection/ Law Enforcement, Hazardous Materials Mgmt.)			
Appropriation	55,729	61,668	69,101
Obligation	54,704	61,212	69,101
Work Years	826	864	921

Management of Lands and Resources

	FY 1987 * Actual	FY 1988 * Actual (in thousands)	FY 1989 Enacted
--	---------------------	---------------------------------------	--------------------

Emergency Operations (Fire Presuppression and Firefighting, Fire Rehabilitation, Grasshopper/Mormon Cricket Control)

Appropriation	90,976	105,598	72,876
Obligation	90,785	104,753	72,876
Work Years	779	1,031	820

General Administration

Appropriation	87,807	88,324	87,649
Obligation	89,361	88,236	87,649
Work Years	1,112	1,079	1,126

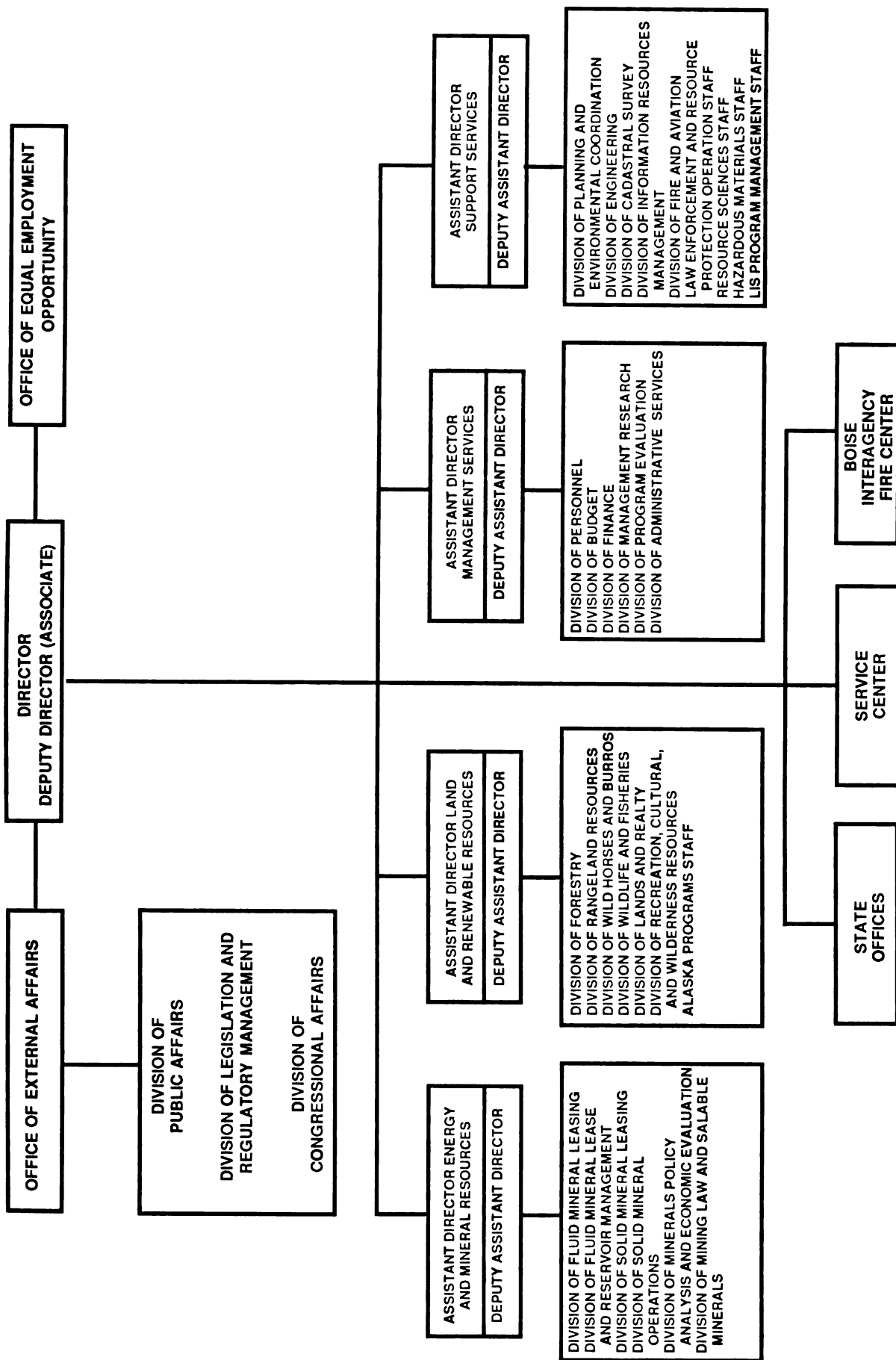
* Appropriation amounts shown for FY 1987 and FY 1988 have been adjusted for comparability to reflect the revision of the Bureau's budget structure which took effect in FY 1989.

O&C Grant Lands

	FY 1987 * Actual	FY 1988 * Actual (in thousands)	FY 1989 Enacted
Western Oregon Resources Management (Forest, Timber, Fire Protection, Planning, Soil/Water/Air, Wildlife Habitat Management, etc.)			
Appropriation	51,305	53,841	55,270
Obligation	49,414	53,733	55,270
Work Years	961	991	1,030
Western Oregon Information & Resource Data Systems			
Appropriation	710	1,367	625
Obligation	462	1,356	625
Work Years	9	9	9
Western Oregon Facilities Maintenance			
Appropriation	4,176	3,909	3,655
Obligation	4,120	3,835	3,655
Work Years	62	56	56
O&C Construction and Acquisition			
Appropriation	541	881	450
Obligation	528	857	450
Work Years	11	11	9

* Appropriation amounts shown for FY 1987 and FY 1988 have been adjusted for comparability to reflect the revision of the Bureau's budget structure which took effect in FY 1989.

BUREAU OF LAND MANAGEMENT



Public Land In The Western States



Legend
Lands Managed By BLM



U.S. Department of the Interior
Bureau of Land Management

BUREAU OF LAND MANAGEMENT STATE OFFICES

ALASKA: 222 W. 7th Avenue, #13
Anchorage, AK 99513-7599
Vacant, State Director
(907) 271-5555

MONTANA: 222 N. 32nd Street
P.O. Box 36800
Billings, MT 59107
Marvin LeNoue, State Director
(406) 255-2913

ARIZONA: 3707 N. 7th Street
P.O. Box 16563
Phoenix, AZ 85011
Vacant, State Director
(602) 241-5504

NEVADA: 850 Harvard Way
P.O. Box 12000
Reno, NV 89520
Ed Spang, State Director
(702) 328-6386

BIFC: Boise Interagency Fire Center
3905 Vista Avenue
Boise, ID 83705
Jack Wilson, Director
(208) 389-2457

NEW MEXICO: 120 Post Office and Federal Bldg.
P.O. Box 1449
Santa Fe, NM 87504-1449
Larry Woodward, State Director
(505) 988-6316

CALIFORNIA: 2800 Cottage Way, E-2841
Sacramento, CA 95825
Ed Hastey, State Director
(916) 978-4746

OREGON: 825 NE Multnomah Street
P.O. Box 2965
Portland, OR 97208
Dean Bibbes, State Director
(503) 231-6274

COLORADO: 2850 Youngfield Street
Lakewood, CO 80215
Vacant, State Director
(303) 236-1700

PTC: Phoenix Training Center
5050 N. 19th Avenue
Suite 300
Phoenix, AZ 85015
Larry Hamilton, Director
(602) 241-2651/FTS 261-2651

EASTERN STATES: 350 S. Pickett Street
Alexandria, VA 22304
Curtis Jones, State Director
(703) 461-1369

UTAH: 324 South State Street
CFS Finan. Ctr. Bldg., Suite 301
Salt Lake City, UT 84111-2303
James M. Parker, State Director
(801) 539-4021

IDAHO: 3380 Americana Terrace
Boise, ID 83706
Del Vail, State Director
(208) 334-1771

WYOMING: 2515 Warren Avenue
P.O. Box 1828
Cheyenne, WY 82003
Ray Brubaker, State Director
(307) 772-2111



111

DEPOSIT
JAN 04 1990
SHIPPED

Stanford University Libraries



3 6105 127 892 938

DATE DUE			

STANFORD UNIVERSITY LIBRARIES
STANFORD, CALIFORNIA 94305-6004

